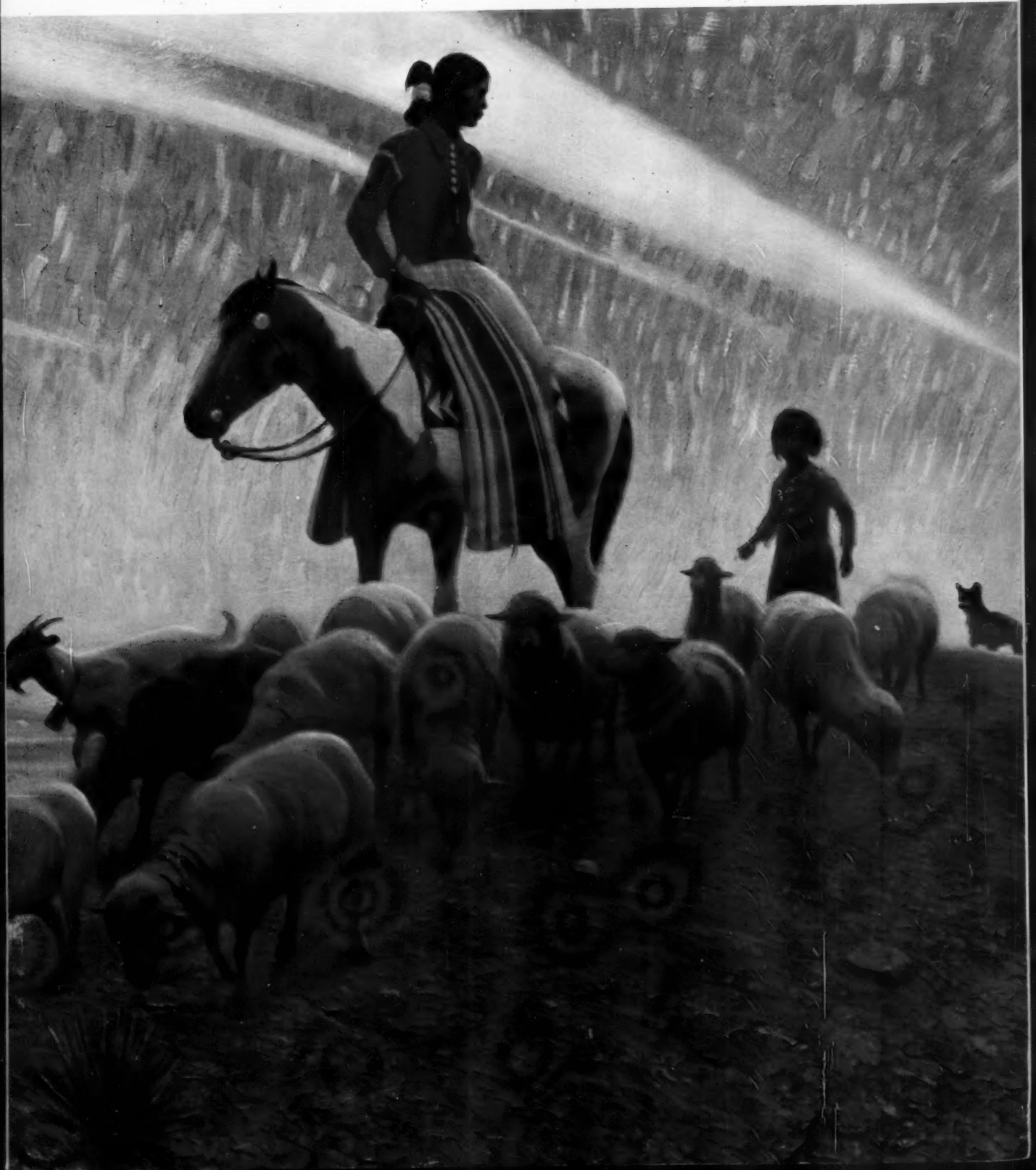


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Desert

Magazine of the
OUTDOOR SOUTHWEST





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24

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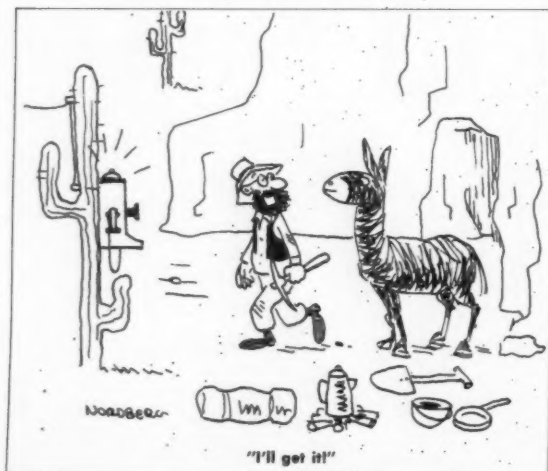
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LETTERS FROM OUR READERS

Dick Wick Hall . . .

To the Editor: Weldon Heald's article on Dick Wick Hall of Salome (September Desert Magazine) is by far the most complete account I have ever seen of Mr. Hall's life in the Southwest. It is extremely timely in connection with the September celebration of Dick Wick Hall Day in Salome, an annual event we are pleased to have helped promote editorially for the past 16 years.

JOHN MCCARROLL, publisher
Wickenburg Sun
Wickenburg, Ariz.

Recalling "Gopher Days" . . .

To the Editor: Edmund Jaeger's pocket gopher article in the August Desert made me suddenly see myself as a high school girl tramping the loosely cultivated soil of an orange grove with gopher traps and a trowel in one hand and a long-handled shovel in the other. This was in Perris Valley, 15 miles southeast of Riverside, Calif., in the early 1900s.

Gopher mounds near the base of a young citrus tree meant trouble—and it was my job to eliminate the trouble. The family cat, "Queen Dido," was my chief assistant in this work.

MARTHA VAN WINKLE
Boston, Mass.



UTAH'S VERSION OF THE SPHINX

Profile in Stone . . .

To the Editor: In the August issue, page 34, is a photograph of the Register Rocks in southern Utah. The large rock carries the outline of a face. A very unusual picture.

LUCIUS L. DEYO
Los Angeles

To the Editor: How many folks have called your attention to the profile on Register Rocks?

C. WILSON
Rutland, Vermont

(Many people have written in to report the "discovery" of Utah's version of the Sphinx.—Ed.)

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EACH MONTH, dozens of new products—specifically or incidentally aimed at the desertland-oriented consumer—hit the market. Most of these freshly engineered items fall into one or more of the following categories:

1. Tools and equipment for desert homesteaders.
2. Camping equipment.
3. Gadgets for better desert living.
4. Recreational products.
5. Vehicles for special duty.

Starting this issue, *Desert Magazine* will gather and evaluate several new items each month. The tests will try to determine the following points:

A. What is the new product and how can it be specifically applied to desert living?

B. If it is a tool or household product, what makes it different from other products of a similar nature?

C. Is it merely "new"—or is it truly practical and useful?

D. Under first-hand testing, does the product live up to the manufacturer's claims?

E. Complete specifications, prices and where-to-buy data.

Offering test opinions on new products can be a delicate matter, especially when these opinions are meant for mass consumption. To do this job for our readers, this publication has called on Dan Lee, a 32-year-old freelance writer whose work to date has appeared in 35 national magazines. Lee has made new products his writing specialty in over 600 published articles. He has examined, tested and written about hundreds of new products for such magazines as *Popular Science*, *Popular Mechanics*, *Better Homes and Gardens*, *Popular Boating*, and *Sunset*.

Anyone with a manufactured product specifically applicable to Desert Southwest use, can contact this column by writing to: New Ideas, Desert Magazine, Palm Desert, Calif.

A NEW TOOL FOR CABIN BUILDERS: A new portable circular saw—called the "C-Saw" by its maker—is an amazing tool. It is powered by its own tiny gas engine, allowing cordless operation free from outside power

sources. The advantages are obvious, since most remote-area cabins are not serviced with electricity. Careful design is obvious in the "C-Saw." The $\frac{3}{4}$ horsepower two-cycle gas engine itself weighs only 3 $\frac{1}{4}$ pounds. Together with the saw housing and 8" blade, total weight of the tool is a low 11 pounds. This is lighter by



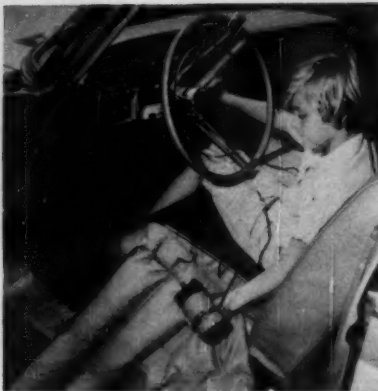
PORTABLE SAW

two or three pounds than many electric 8" circular saws.

The "C-Saw" has a bevel adjustment and will cut $2\frac{5}{8}$ " on 90° and 45° angles—with calibrated scales for depth-of-cut and bevel. The saw is activated by pulling the "string" on the engine's rewind starter. The choke lever is handy to the handle, and it is quite simple to hold the saw with one hand and pull the string with the other. "C-Saw" has good balance, good "feel" for a portable tool.

Situated on the handle under the user's thumb is a "kill-button". One of the first things I noticed about the tool was the swiftness with which blade rotation halted—a good safety feature.

PERFORMANCE: Users of electric circular saws will have to get used to the "C-Saw". It isn't advisable to ram the blade through a 2x4 with sheer muscle power! Remember that with electric saws you have tremen-



ELECTRIC BREATH

dous power behind the blade. With a gas engine, the cutting performance will depend in large part on atmospheric conditions and carburetor adjustment. The first two or three times I tried the "C-Saw" it ran through a 2x4 with ease—not as fast as an electric model, but reasonably fast. The next day it was cloudy and I tried again. This time the blade seemed to bog down. A simple carburetor adjustment corrected the situation, however.

Plywood is a cinch to cut. The only annoying fault I could find was the gas-tank. With the saw used overhead or on its side, fuel leaked out around the cap gasket. Not much—but enough to bother me. Tightening the cap frequently is necessary.

All things considered, the "C-Saw" looks and feels like a tool the cabin-builder can really enjoy. It is a practical tool, not a toy. With care in operation, I'd say it should last many years. It will not supplant the electric saw—but as the first portable circular saw, it will find a definite place in desert life. "C-Saw" is made by the Comet Mfg. Co., P. O. Box 2098-D, Pasadena, Calif. The Price is \$119.95. For a local source on a retail level try the following: Valley Equipment, 4011 E. Palm Canyon Drive, Palm Springs, Calif.; Arizona Welding Equipment Co., 1001 Black Canyon Road, Phoenix; Ray Heyne Machine Co., 707 W. Buchanan, Phoenix.

A SUBSTITUTE FOR WIND-POWER: Anyone who has tramped the hills all day and returned to camp, bone-tired, knows the agony of puffing up an air-mattress! An import from Japan called the "Lectro-Flate" promises to relieve such suffering. This product is a tiny air-pump about the size of a fist. It operates off either 6-volt or 12-volt auto battery. Just plug it into



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—continued on page 36

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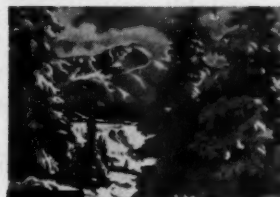
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Nell and Her Mom Make the C

Desert Magazine's most popular author completes a 30,000-mile jaunt through
and from this adventure comes another

SOON AFTER their introduction to Mexico in Model-T Ford days, Nell Murbarger and her mother began drafting plans for a winter-long camping trip to Mexico's southern tip, with side-excursions to all the fascinating places of which they had heard and read.

Work, war, finances and other problems always conspired to defer the trip, and the years marched on until Nell passed the half-century mark and her mother was nearing 74—much too old, friends told them, for such a strenuous jaunt.

But, Nell and Mom were through postponing their kingsize dream. Undaunted by their years (as well as by repeated warnings that two American women would not dare camp alone in the more remote sections of Mexico) mother and daughter gaily set off one fine autumn day last year in a new Ford pickup truck equipped with camper-coach body.

They visited 28 Mexican states and boosted the total of their Mexico ramblings to more than 30,000 miles. Furthermore, they had camped out

every night—invariably by themselves in open country.

Traveling good roads and bad, Nell and Mom visited scores of fascinating off-the-beaten-track places, unknown to guidebooks and rarely glimpsed by tourists. And they met the people of Mexico.

From this trip has come a new Nell Murbarger book: *30,000 Miles in Mexico*. Only a person with sincere love and respect for our Southern neighbor, and with good understanding of her patient, kindly people, could have written this humorous, thoroughly entertaining, and delightfully-human narrative.

Those wishing to purchase a copy of this book by mail may do so by sending personal check or postal order for \$6 to Desert Magazine Book Store, Palm Desert, Calif. Purchasers should add 15c for postage-handling; and California orders are subject to an additional 24c sales tax.

30,000 Miles in Mexico has a 6x9-inch page size; over 300 pages; half-tone illustrations; end maps; cross

index; and cloth binding. Publication date is October 1, 1961.

The following condensed anecdotes, a mere sampling from *30,000 Miles in Mexico*, detail some of Miss Murbarger's "people-to-people" adventures on her recent South of the Border camping trip.

NELL MEETS A GOOD SAMARITAN: When traveling through open country in Mexico it is a simple matter to determine the right road, but in cities it is easy to become confused. One of the many places in which we did so was Cuautla, where a street we had supposed would lead us back to our highway deteriorated into a rutted narrow lane. Soon as we knew for certain we were wrong, I flagged down the next car — operated by a well-dressed Mexican—and asked how to locate the road to Cuernavaca. The man said to turn around, go back up town, turn right on This Street so many blocks, left on That Street, and so forth. Although still a little dubious, we thanked him and he continued on his way.

After driving along the narrowing lane possibly half a mile, we found a place wide enough to enable a U-turn and went back the way we had come. Again in the business district, we made one or two turns and already were becoming bewildered when we heard behind us the pre-emptory tooting of an automobile horn. Glancing back, we were surprised to see the man whom we had flagged down likely 20 minutes before.

Afraid we might not find the proper road out of town, he had parked on a street where he knew we would have to pass and had dropped in behind us. Long as we had made the correct turns he had followed secretly, but soon as we made a wrong turn he had sounded his horn to stop us and set us right. Fearing we might still have trouble, this Good Samaritan of Cuautla then insisted on preceding us in his own



NELL'S BOOK IS DEDICATED TO HER MOTHER, DESCRIBED AS THE "PERFECT CAMPING COMPANION"

campers' Grand Tour of Mexico...

in the Land of the Plumed Serpent in pickup truck and piggyback camper . . .

great travel book by Nell Murbarger

car to the city limits, where he waved us on our way with a cheerful "Adios!"

• • •

BUYING A DRESS AT A JUNGLE SHOP: Seated on a rickety kitchen chair at one edge of the porch, a woman was busily pumping the treadle on an ancient sewing machine. It looked like the one Mom had owned when I was a child—the one on which Grandma had made all my baby dresses. By Mexican standards the woman was quite elderly.

Yes, of course, she would be glad to show me the dresses. They were 30 pesos each. No, she laughed heartily, she never used a pattern, just whacked them out—a knack she illustrated by making quick cutting motions with a pair of shears and an imaginary piece of dress material. No, the dresses were not sized, and she didn't have a tape measure. *Pero, no importe!* Extending her hand to its full reach, then bringing her thumb against the tip of her middle finger, and again extending her hand, she measured me across the bust, then from shoulder to waistline, and waistline to hem. Carrying these three sets of figures in her head, the jungle seamstress began indicating dresses for my consideration.

Each was hung on a shoulder-wide length of bamboo, in the middle of which was fastened a twisted henequen cord that looped over a wire hook affixed to the palm thatch of the porch roof. Since the hooks were higher than either of us could reach without something on which to stand—and neither the chair or sewing machine appeared sturdy enough to double as a ladder—the woman produced a longer length of bamboo, like a stubby fishpole, and with its help began lifting the hanger-loops from their hooks. After she had taken down half a dozen dresses and surveyed each with the same measuring-worm technique, she found two that corresponded to my size. Turning

the garments wrong side out she called my attention to the generous seams and neat finishing.

The one I chose was a sleeveless ribbed cotton, white, with a pale green stripe, and as I paid for it I said I was sorry to have caused her so much bother taking down dresses—and now she would have to put them all back. But the old seamstress dismissed my apology with a wave of the hand and another hearty laugh, and said if I wanted to go inside her *casa* and change to my new dress, I was welcome to do so . . .

• • •

THE CYCLISTS: As we were nearing Hidalgo de Parral, we saw ahead of us a passenger bus halted beside the highway, its human freight leaning out the windows and craning necks to peer expectantly up the road. About the time we came abreast of the bus, seven bicycle racers topped the hill, each crouched low over his handlebars and pedaling furiously! As they passed the halted bus, its passengers indulged in a round of cheer-

ing and back-slapping, accompanied by paying of bets and laying of new bets. Continuing up the hill we met stragglers among the racers, and about a mile behind the others met the seventeenth and last bike—its rider pumping hell-bent-for-election! When he saw our truck approaching he motioned frantically for us to move over to the left side of the road so he could cut a curve on the right. I hastened to comply and he tore past us as if the futures of himself, his sons, hometown, and nation, all hinged on the outcome of this ride.

• • •

THE STAMP DOLE: With exception of the Indian pueblos, El Casco was about the smallest village we had ever seen. It had only one business house, a tiny gray adobe, but over its door was the sign we had been seeking. A man was lounging in the doorway and when Mom asked him if the office was open, he nodded and stepped inside. He admitted to being the postmaster of El Casco; also keeper of the stage station, and the local purveyor of Coca-Cola. From somewhere



THE CAMPER ON A ROAD LINED WITH COCO PALMS NEAR NAUTLA, VERACRUZ



IPOMOEA TREES AND WILD CACTUS GARDEN, MORELOS

in the sparse furnishings of his office, he produced a broken cardboard box containing a few scattered *timbres* and began sorting out the ten 30-centavo stamps requested by Mom.

"Uno," he counted, tearing off a single stamp and handing it to Mom. "Dos," tearing off another and tendering it. "Tres . . ." and so on, for the full ten stamps.

After the postmaster had completed this onerous piece of business it occurred to Mom that it might be a long while before we found another postoffice, and that a stamp in hand was worth several somewhere else. She accordingly produced three more pesos and asked for another ten stamps. Instead of swatting her, or tossing her out of the office as he probably felt like doing, El Casco's postmaster heaved a deep sigh, looked only slightly annoyed, and began counting and tearing off, individually, ten more stamps.

"BANK NIGHT" IN THE BACK-COUNTRY: Mom is never happier than when she is making others happy, and that evening at Tempoal she was in her glory—a bit of ribbon and some lace for this little girl who looked as if she might like to sew; some marbles and a couple of plastic soldiers for this boy; some bright construction paper and a crayon for this artistic-looking youngster — and for every child, without fail, two or three of the pretty Christmas cards we had saved over the seasons.

Although every child in the group was quivering with anticipation to learn what he or she should receive, I have never known a more orderly

clined his head in a little bow. His face was handsomely wrinkled, a very kind face, and his voice was as soft as the south wind whispering over meadow grass. He said this was a fine thing Mom had done, that she had made all the little ones happy, and when the little ones were happy, everyone in the village was happy.

AT THE DURANGO MARKET:

In the course of our browsing through the market we spotted some good looking green peas and thought it would be interesting to have a few for supper. Without inquiring the price, Mom asked for two pesos' worth. With the pea-vendor piling pods on the scoop of his scales, one double handful after another, the pile mounted higher and higher.

"Good grief!" exclaimed Mom, at last. "How many is he going to give us? How can we ever eat all those peas!"

Perhaps the produce man understood a bit of English; or maybe he could interpret the tone of her voice. In either case he glanced up coyly and stopped putting peas on the scale. Even at that, he had filled our shopping bag half full of them for only 16 cents.

A CHICKEN FOR SALE: The small amount of stock offered by some of the Indian women at the market at San Cristobal las Casas was truly pitiful. One young woman, sitting on the ground outside the market building and shivering in the chill morning air, was cradling on her lap a single red hen. As she awaited a pur-



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ZINACANTECAN CORN VENDOR

chaser, the girl affectionately stroked the glossy feathers on the hen's head and neck, and now and again leaned down to whisper to the bird. What emergency, what tragic circumstance, or great need, was prompting the sale of this fowl, so obviously a family pet?

CHIAPAS IS A BIT GAYER: Even the people of this far south land of Chiapas seemed conspicuously different in character. Everyone was spontaneously friendly, openly exuberant. When traveling in Mexico, Mom and I make it a practice to wave to virtually everyone we meet or overtake along the highway, whether afoot or horseback or only standing beside the road. Almost invariably the persons to whom we wave respond to our little gesture of friendliness and seem pleased by it. But here in Chiapas we found the tables turned. The natives waved first! Many times, as we passed along the road, we heard small boys shout happily, "*Buenos dias, senoras!*" or even "*Buenos dias, senoritas!*" To us old musketeers, of 74 and 51, it was the height of flattery to be called the equivalent of "miss," and the greeting made a great hit with Mom. Once, as we passed a roadside group of young men, our ears caught the familiar two-note whistle of the Hollywood wolf-pack, and one young fellow threw us a kiss!

IGUANAS FOR SALE OR LEASE: Soon after lunching at the edge of Taxco, we began winding sharply downgrade; and right in the middle of one of the steepest pitches three

children dashed out in the road, directly ahead of us, in the same manner movie highwaymen dash from hiding to hold up the Deadwood stage. But, instead of brandishing six shooters, each of these Guerrero youngsters was brandishing an iguana!

Leaping out of harm's way, the three children began pounding down the road beside us, the repulsive lizards cradled in their arms.

Each iguana was wearing around its middle sort of a leash, or halter. When I tried to prevail upon the children to remove these ropes so the creatures would look more natural, they refused—shaking their heads violently even when I offered five pesos for a single picture without the halter.

Continuing down the grade we were accosted by possibly a dozen more youngsters, each with haltered iguanas, offered for sale, lease, or photographic purposes. After the first experience, however, the novelty sort of wore off and we did not stop again.

• • •
AT THE MONTE ALBAN RUINS: One well-dressed Mexican appeared

to be completely captivated by the place. He was alone and obviously wished to remain so. In our wanderings over the plaza, and around the pyramids and terraces facing on it, we ran across this chap on several occasions—possibly staring intently at some huge carved stone, hands locked behind his back and his entire attention concentrated on the object before him. Next we would see him studying some other part of the ruins, still lost in his own private world of wonder and fascination. He respected our privacy, we respected his; and in the nearly two hours that the three of us were in close association, we exchanged a total of only six words. This abbreviated conversation took place when the three of us unexpectedly came face to face in an underground chamber of one of the smaller pyramids centering the plaza.

"*Es mucho grande!*" offered Mom, as an ice-breaker.

For a moment we thought the Mexican hadn't heard her, or wasn't going to answer. Then he shook his head, slowly and wonderingly.

"*Si!*" he said, softly. "*Pensar . . . pensar . . .*" (To think . . . to think).
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MOM AT THE TEMPLE OF QUETZALCOATL, PYRAMIDS OF SAN JUAN TEOTIHUACAN



OVER THE DESERT

By ERWIN KAUPER*

"NO FOG, NO SMOG!" read the ads for the ever-increasing number of desert subdividers. Their aim is to swell the population figures of desert areas—but an unwanted by-product of this activity is, inevitably, air pollution. Because of the wide open spaces involved, this effect has not been too obvious—so far.

BUT SOME SECTIONS OF THE AMERICAN DESERT ARE BEHAVING SUSPICIOUSLY LIKE THE LOS ANGELES AREA OF THE EARLY 1940s.

Desert old-timers note that the ringing mountains, so sharply etched against the horizon in earlier days, now often appear dim and fuzzy. Pilots flying toward the larger cities such as Phoenix and Tucson see telltale brown haze blankets over the built-up areas.

These latter communities are aroused enough by the situation to take some preliminary steps directed toward discovering the extent of the smog problem. Money, to the tune of \$50,000, is being raised by popular subscription to be used in a study—the first ingredient in an air pollution control program. This action followed the refusal of the Arizona Legislature to put up \$35,000 for this purpose.

Opponents to the State appropriation held that the smog has been and is being studied extensively in Los Angeles and elsewhere. If any break-through occurs, it will be through the more massive research efforts being expended by already established Air Pollution Control agencies and the automobile manufacturers. The results of this research will be directly applicable to the desert's smog problem, so why spend money on duplicate efforts?

THIS ARGUMENT WON THE DAY AT THE ARIZONA STATE CAPITOL, BUT APPARENTLY THERE ARE ENOUGH PEOPLE IN TUCSON AND PHOENIX EAGER TO GET STARTED ON AN ANTI-POLLUTION PROGRAM OF THEIR OWN—EVEN IF THEY HAVE TO PAY FOR THIS BEGINNING OUT OF THEIR OWN POCKETS.

Will the sources of Arizona smog be revealed by this study? Probably; and these will be the same sources

that have caused trouble in other areas. There will be local air pollution sources: from industry, mining operations, refuse dumps, open fires. These are the obvious—cause-and-effect tied together by ribbons of smoke. Less obvious, but more of a problem to control, are the wide-spread area sources. Hundreds of small emitters together pollute the air over cities, though each by itself appears innocuous. Most of the Los Angeles variety of smog is from this type of source, and represents mainly the emissions from the automobile.

Another source of pollution is natural—the suspended dust found occasionally filling the desert skies—the aftermath of dust and sand storms. Dust of this type is not generally included with the man-made pollutants. However, many residents who live along unpaved roads find road dust to be their main air pollution problem.

EXAMPLES OF THE LOCAL AND AREA TYPES OF POLLUTION ARE READILY FOUND IN THE DESERT SOUTHWEST.

Best-known and most venerable in that it has been a visible symbol of the main industry of the desert since the first prospector developed the first commercial mineral deposit, is the plume coming from the mill site of a mine. Such mills and smelters have been less of a problem in the desert than elsewhere, since their fumes have room to disperse before encountering damageable animal or vegetable matter.

STILL, THE MINING TOWN IN THE SHADOW OF THE SMELTER SMOKE IS NOT CONSIDERED THE BEST RESIDENTIAL AREA.

Cement plants traditionally have been distributors of dust over the countryside. So long as population den-

*The author is a senior meteorologist with the Los Angeles County Air Pollution Control District, but the opinions expressed in this article on desert smog are his and not necessarily those of the agency for which he works. This timely report on smog is Kauper's third contribution to Desert Magazine and follows his articles on "Wind—the Desert's Worst Weather" in the May '61 issue; and "What's Behind the Desert Mirage," August '61.

sity remained low, this situation was accepted as right and normal.

The justification for using no controls on pollution-production processes may be simply stated as being based on economics. Air currents provided the easiest and cheapest way to get rid of the dust by-products. As people settled nearer to the mill or smelter, troubles began. Industry claimed that since it was there first it had a prior right to continue in its old ways. The newcomer, though, claimed that they acquired a property right to the clean desert air when they purchased their piece of ground. Just because industry had been using more than its rightful share of the air—in effect squatting on air in the public domain—this did not mean that it could continue this habit indefinitely. The cattle rancher versus farmer tribulations of the early West is being closely duplicated by the industrialist and homeowner of the present day. The question then was whether anyone had the right to an unfenced range.

THE QUESTION HAS NOW BECOME: HAS ANYONE THE RIGHT TO UNLIMITED USAGE OF THE AIR, TO POLLUTE AS HE WILL?

The desert farmer, too, contributes to air pollution through some of his practices. The burning of crop refuse can smoke up an entire valley, as may be seen in such favored places as the Coachella and Imperial valleys. Crop spraying and dusting can be a serious air pollution problem at times. Some materials, such as 2-4D, used in weed control, prove to be plant-damaging as far as 10 miles from the site of application, the result of a gentle drift of the toxic material with the wind.


ON THE OTHER HAND, THE FARMER IS OFTEN ON THE RECEIVING END OF THE POLLUTION PROBLEM.

Crops and livestock may be affected by fluorine compounds released by steel mills, and by sulfur dioxide from smelters. A special case involves modern pollutants—radioactive materials dusting the herds in southern Nevada and eastern Utah, the aftermath of the atomic weapons testing in Nevada. Farmers downwind of the Southern California smog belt find their susceptible crops showing increasing symptoms of air pollution injury. For example, the alfalfa stands of the Antelope Valley in the southwestern corner of the Mojave Desert have shown the effects of smog, still potent after crossing a mountain range—potent enough to wither and scar the alfalfa leaflets.

This potency is the direct result of the peculiar chemical reactions that occur in the atmosphere after the smog-forming materials are released into the air. A large source of hydrocarbons—gasoline vapor—acted on by sunlight and allowed to combine with nitrogen oxides—the result of any type of burning—results in the eye-stinging smog of Los Angeles. As this cloud of pollutants moves inland, pushed by the westerly winds, the reactions continue, forming a whole series of ever-changing compounds. Gradually the eye-irritating portions disappear but the plant-damaging materials linger on.

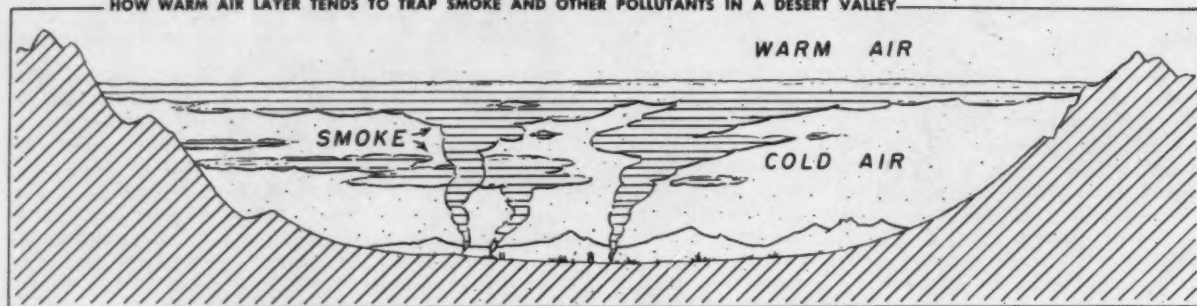
THAT AIR POLLUTION IN DESERT AREAS IS TAKEN SERIOUSLY BY CONTROL AGENCIES MAY BE SURMIZED FROM THE FACT THAT ROUTINE AIR ANALYSES ARE BEING MADE IN DESERT COMMUNITIES.

The Riverside County Air Pollution Control District



AGRICULTURE BURNING SOUTHEAST OF INDIO IN THE COACHELLA VALLEY OF CALIFORNIA

HOW WARM AIR LAYER TENDS TO TRAP SMOKE AND OTHER POLLUTANTS IN A DESERT VALLEY



is sampling the air at Blythe, Indio and Palm Springs. Tests for plant damaging materials have been made by Los Angeles County in the Antelope Valley, while San Bernardino County has measured the oxidant concentrations in the Hesperia area.

WEATHER FACTORS CONDUCTIVE TO DESERT AIR POLLUTION ATTACKS HAVE BEEN STUDIED IN DETAIL.

While Southwest climate varies from that of a cool high desert valley in Nevada to the warm valleys of the Colorado Desert, certain conditions leading to potential pollution are common to all. Basically, the weather situation most likely to result in an air pollution attack is the one that brings the nicest of weather. In this the desert areas are similar to the coastal smog communities.

HOWEVER, WHILE LOS ANGELES HAS ITS SMOG MAINLY DURING THE SUMMER AND EARLY FALL, THE DESERT CONDITIONS OF WINTER BRING THE GREATEST THREAT—THOSE QUIET SPELLS OF GENTLE WINDS WHEN A STABLE AIR MASS SETTLES OVER THE DESERT SOUTHWEST.

Under these conditions the air is most stable, so that any pollutant added to the air tends to remain suspended. When the build-up of these materials is great enough, people take notice of the presence of air pollution.

During a period of air stagnation, cold air settles in a valley. This air is overlain by warmer air above. Any pollutant released near the valley floor will remain-trapped, unable to rise because of the density difference between the lower cold air and the overlying warm air. As long as there is insufficient wind to move the polluted air out, the pollution load will continue to increase.

A study made of the Antelope Valley by the Los Angeles County Air Pollution Control District revealed that this desert area's weather conditions are such that potentially it could have about half the number of smoggy days as does Los Angeles. Antelope Valley's bad days would occur mainly in winter. The intense summer heat of the desert effectively keeps the air stirred, allowing any pollutant to disperse into the higher atmosphere.

THE DESERT AREA WITH THE HIGHEST AIR POLLUTION POTENTIAL, BASED ON WEATHER FACTORS, IS THE LOW DESERT OF SOUTHEASTERN CALIFORNIA.

An expanding population and a valley configuration conducive to eddying air currents, such as found in the Coachella Valley, appear to make this region the one with a pollution problem closest at hand. Evidence of this may be seen in the generally low visibility observed by the airport weather stations at Palm Springs and Thermal. While the general desert visibility may be 40 miles or better, these stations will report a visibility

range of from 10 to 20 miles. And this is most often haze (smog, if you will), not suspended dust from desert dust storms.

HOW MUCH OF THIS POLLUTION LOAD HAS COME FROM ACROSS THE MOUNTAINS FROM THE LOS ANGELES BASIN IS NOT FULLY KNOWN.

However, there have been enough instances when the air flow was such as to suggest that the haze of the Coachella Valley is homemade.

One of the meteorological accomplices of the pollution problem in Coachella is the reversing wind flow that regularly occurs. A flow from the northwest is replaced by one from the southeast.

THUS, AN INDIVIDUAL PARCEL OF POLLUTION MAY BE CARRIED BACK AND FORTH ACROSS COACHELLA VALLEY FOR SOME TIME BEFORE A FRESH WIND CLEANS OUT THE VALLEY.

Can this process of progressive pollution of the desert air be halted and reversed? While it has been stated that the only positive control is to eliminate people, this need not be the only solution. The people who choose the desert in which to live, whether they made this choice 50 years ago or just yesterday, deserve to breathe the clean air they bought when they purchased their piece of desert ground. Luckily, the desert is not a region in the forefront of industrial and commercial development.

BECAUSE OF THE DESERT AREA'S LEISURELY PACE OF GROWTH THE DESERT DWELLER MAY SAFELY AWAIT DEVELOPMENTS THAT ARE NOW A POSITIVE NECESSITY TO RESIDENTS OF THE CROWDED COASTAL BELT.

As air pollution control engineers succeed in muzzling emissions with control devices, these devices can be made mandatory on smog-making sources in the desert communities. Present technology can provide controls for almost all types of industrial sources, including cement plants and milling and smelting operations. When the automobile control is developed, as surely it must, this can be added as a weapon against the fouling of air.

THE GOAL OF CLEAN AIR FOR EVERYONE WILL BE ACHIEVED ONLY THROUGH VIGILANCE.

New sources of power, new operations, all carry the possibility of new pollution problems. But if controls are applied as they are made available, the principle of enough air for each man's vital functions, with no one usurping the air of a community in which to dispose of unwanted by-products of his activities, will be attained in as complete a measure as is possible in the imperfect social world.

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WITH SHRILL whoops of mingled pain, rage and frustration, the fierce Mescalero Apaches fled from Fort Davis and headed for their ancestral homes high in the neighboring mountains, leaving their dead and wounded on the post grounds. The soldiers poured a last volley at the fleeing Indians, and then prepared to care for the wounded and bury the dead.

Fort Davis, in the Trans-Pecos area of Texas, was established in 1854 on

people," Tom said. "I guess Indians are all alike. They don't want our way of life."

The mother knew what the son had not even guessed. "Emily did want our life," she said. "She was in love with you and wanted to marry you."

But, Tom married Mary. The weeks became months and finally a year passed with no news of Emily. She seemingly had vanished into the nowhere from whence she had come.

The Indians, meanwhile, were raiding the whites with increasing boldness. Wagon trains, stages, travelers and outlying ranches were attacked. Fort Davis was on constant alert.

One dark night a sentry at the Fort detected muted footsteps near the post. "Halt or I'll fire!" he commanded. No answer came from a shadowy form that whirled past him. The soldier squeezed his trigger, and a woman cried out in pain.

They found Emily on the ground. She was fatally wounded.

"I hear talk," she was able to tell her friend, Mrs. Easton. "My people coming to kill by the light of morning—I tell so Tom no get killed." And then the Apache girl died.

The raiding party struck at dawn, but the entire garrison was waiting. The Apaches did not have a chance.

Emily was buried at the foot of the mountain between the post buildings and Limpia Creek. The fort carpenter cut out a crude wooden headboard, and printed upon it: "Indian Squaw—Killed by Accident."

This caustic monument eventually fell victim to the consuming efforts of time and weather. Only a heap of rocks remained to mark Emily's lonely grave when, in 1936, the State Centennial Commission of Texas erected a more fitting headstone. The granite monument reads: "Here lies Indian Em'ly, an Apache girl whose love for a young officer induced her to give warning of an Indian attack. Mistaken for an enemy she was shot by a sentry, but saved the garrison from massacre." ///

Indian Emily's Tragedy

— BY LOUISE CHENEY AUER —

orders of Jefferson Davis, Secretary of War, to protect travelers on the Overland Trail leading to points West. Early that morning the post had suffered a surprise attack, but aided by men of several large freight outfits that had camped the night there, the soldiers inflicted heavy casualties on the Indians.

While the burial detail was working at its grim task, one of the "corpses" raised a hand and moaned. "Hey," cried a soldier as he bent over the prone figure, "this one's alive, and it's a girl."

"Bring her inside," ordered the captain. "Put her in the hospital with the men."

A young lieutenant, Tom Easton, stepped forward and saluted. "Sir," he addressed the captain, "my mother is good at nursing and I'm sure she'll care for the girl in our home. Let me call her."

Mrs. Easton had the girl moved to a comfortable adobe room behind her home, and tenderly cared for her. During the Apache girl's convalescence, she learned to speak a few words of English—enough to make known the fact that she wanted to remain with the Eastons after she recovered. It was agreed that she would be the Eastons' maid, and the girl took the name, Emily.

Emily was supremely happy in her new home until Mary Nelson and her family moved to Fort Davis. Tom was immediately attracted to Mary, and soon was spending all his spare time with her. Emily became increasingly silent and withdrawn. And then it happened: Tom and Mary announced their engagement. That night Emily stole away.

"She's probably gone back to her



THE STATE'S TRIBUTE TO AN INDIAN HEROINE



PRESENT-DAY RUINS OF FORT DAVIS, TEXAS

TURN THE PAGE FOR THE STORY OF ANOTHER BRAVE TRIBESMAN

Dr. Tom-Tom-Beating-The-Wind

The strange story of an Apache Horatio Alger who rose to great heights in the whiteman's world, and then met heartbreak trying to help his fellow tribesmen

By OREN ARNOLD

INDIANS IN THE Southwest have come a long way from the savagery they once showed white pioneers; and one of their own race set the main pattern for this progress. Much of their economic and social growth since 1940 has been exactly what a certain distinguished Dr. Carlos Montezuma campaigned for, without success, prior to his death in 1923.

His story is unequalled for sheer incredibility and excitement. It began shortly before dawn in Arizona one morning in 1871. Pima Indians, long victims of the predatory Apaches, swarmed down on an Apache camp bent on revenge.

They got it. First step was to fire the several dozen straw wickiups of the Apaches. Then, as the terrified villagers came running through the flames, the Pimas gleefully killed them. Only a few escaped.

One six-year-old boy, named Wassaja by his Apache mother, was screaming and running down the slope when a Pima warrior on horseback skidded to a halt, snatched the lad up, then galloped on with him.

By normal procedure this terrified boy should have been taken to the victors' camp and tortured for entertainment. But his Pima captor felt he could be sold for profit, so the lad was well fed and groomed for a few weeks, then taken to the white town of Florence, Arizona.

"You want to sell this boy?" the astonished whites asked. "Listen, you ignorant heathen, slavery ended in this country six years ago."

"Me sell," the Pima insisted.

It quickly became a town joke, with many whites gathered around. Then an itinerant photographer, a quiet-mannered man named Carlos Gentile, drove up the street in his wagon. A local yokel hailed him.

"Hey, Gentile, why'n't you come buy this 'Pache boy? He ain't got no family.

He could be yore son." The crowd burst into laughter.

Mr. Gentile saw no humor in the situation. Rather, he was taken by the trembling little captive. He stooped over him, trying to communicate; they had no words in common. But Gentile's heart was touched. He emptied his purse—thirty dollars. The Pima took it and rode away.

Carlos Gentile, an Italian trekking through the Wild West taking pictures for a living, thus became Wassaja's first personal contact with white civilization. The boy could hardly have been more fortunate. Not only was Gentile well educated and cultured, he was a man of high ideals. He immediately had his "son" christened—Carlos for himself, Montezuma for a renowned ruler in the pre-history of the Southwest. Then to get the boy out of frontier environment, he put him in his wagon and headed eastward.

Their adventure is a classic of man-teaching-son. Discovery was the main part of it—the lad's first look at photos and mistaking them for little live people; his thinking window glass was ice; his amazement at his first train—pulled by an iron horse that ate live horses then burned them for power, he decided. But meanwhile he learned the strange words and ways of the white people.

Upshot was that in barely two years he was leading his class in a white school in Chicago. He was expert in everything; in 1961 we'd have classified him as a "gifted child," which indeed he was. He helped his new father open a fine photo studio—"Large Photographs by a Patented Process a Specialty." He went to Sunday School. He sold newspapers. He was on his way to becoming a Horatio Alger paleface hero.

Then another critical change came into his life; Carlos Gentile dropped out of it. We do not know why. We know only that Gentile boarded the boy with a Baptist minister named Steadman, then soon disappeared. Gentile

died in 1893 and was buried in Chicago's Mount Hope Cemetery. He must have enjoyed high status, for his portrait hung on the wall of the important Press Club in that era.

Young Carlos went on learning. Under Mr. Steadman's guidance he got help from the Urbana Y.M.C.A., entered a university and was graduated *cum laude* in 1884—just 13 years after he had seen his first white man!

His Bachelor of Science degree led him into an interest in medicine, so he went on to become a doctor, and an excellent one. Meanwhile, however, he also had developed the instincts of a crusader. He enjoyed much attention, much acclaim from classmates, teachers, even the public press, because of his dark Indian color and background and his outstanding scholarship. So he began to capitalize on that.

"Yes, I am an Indian," he'd say in a public address, "but I am no better than any other Indian. I have risen high, you say, and it is true. But any other Indian could do the same thing, given half a chance."

Was that fantastic? Too idealistic? Dr. Carlos Montezuma didn't think so. In fact the thought became an obsession with him. And as he prospered in medicine, he tried more and more to further his crusade for helping the downtrodden Indians of America.

He worked briefly for the U.S. Bureau of Indian Affairs itself, but came out of there embittered. He had seen the crass misuse of public funds by that agency, the graft and inefficiency. So he began to campaign to the general public—against that Bureau. No less a personage than President Theodore Roosevelt listened. Teddy, in fact, called Montezuma to Washington, interviewed him, and offered him a job as head of that very Bureau!

Montezuma had the good sense to decline. He said he could do his people more good as a free-lance campaigner.

So he worked at it with more enthu-

siasm than ever. But this was an era when all Indians were still bad Indians; the general public had little feeling for them, little sympathy. The dark-skinned Apache doctor, more educated than most whites, made no headway. He spent his personal fortune trying, and was frustrated at every turn.

"Then I will take my campaign to my own people themselves," he decided, and spoke of it publicly. "I will lead the Indians in a social revolt."

Naturally he'd start with his own tribesmen, the Apaches. So he journeyed to Arizona, hired a hack and driver and went back to Iron Mountain where he had been captured as a terrified little boy in a Pima raid. He wept there for his mother, who had tried to save him. Then he spoke to a group of Apache men. He told them they could do what he had done; they could demand their rights and rise high, equaling or bettering the palefaces in social status and prosperity. They were real Americans, and he was here to help them; he would lead them to a level undreamed of.

He waited for their reaction. It came—and it stunned him.

They began to laugh, in derision.

"You are a fool," their leader finally explained. "You are Dr. Tom-Tom beating the wind. You yourself have everything. Why are you concerning yourself about us?"

There in a drama-charged moment came the whole crux of the matter. These Apaches, savages for centuries behind, simply had no conception of the missionary instinct. You have everything—house, horses, food, women, wealth—why are you trying to help those who have not? You are a fool!

He was appalled.

He was seeing the one powerful driving force between savagery and Christianity; between the life of fang and claw and the love of fellow man.

The discovery broke him. He did not give up easily, in fact he went on trying for some years. But he made no headway. Those very Apaches disowned him—a fact which causes some modern historians to say that Montezuma was not an Apache. They meant spiritual disowning; they were ashamed of a man so weak as to want to help somebody who had less than he.

Back in his fine medical practice in Chicago, he wrote documents, he made speeches, he published tracts, he did everything he could to promote his cause, trying to blind himself to personal rebuffs from the red folk. Even the whites were apathetic.

Finally he became ill. And with that, he became despondent. His wife, a Hungarian woman named Maria, could not help him. He loved her, he insisted, but he was going back to Arizona once more. No, she was not to accompany him, she must stay in Chicago and collect the bills owed him.

He came to Phoenix, again hired a hack and was driven to the Apache desert reservation near old Fort McDowell. He dismissed the driver, hired an Apache girl to build him a typical poor-looking wickiup, and arranged for her to bring him a little food each week.

Then, wretched with tuberculosis, the

many states. Also a few Apache tribesmen gathered, with their squaws. Had they come to scoff? To jeer at Dr. Tom-Tom-Beating-The-Wind? Maybe.

But after the white ceremonies, some of the dark squaws began chanting over his grave at sundown. And it was not a chant of derision. It was a sacred thing, a proclamation that this good man had been more important than they realized, and had at last been accepted as one of their tribesmen again. He would go down in history as their prophet.

In that they were correct.

For by 1950 many of Montezuma's



DR. CARLOS MONTEZUMA AT 50 YEARS OF AGE

distinguished Chicago physician, widely known as a stomach specialist who treated the elite of white society, wrapped himself in an old blanket and lay down in the wickiup to die.

A missionary found him, and sent for Maria. She came, but she could do little. On a cold, rainy desert day in January of 1923 the crusader passed on.

He had been a prominent officer in the Masons, so the Masonic funeral was impressive, attracting mourners from

recommended reforms were in force. By 1960 many more were, and all the Southwestern tribesmen were profiting thereby. The Apaches, fiercest of all, have become important cattlemen, for instance. Long ago he recommended that dirt farming not be forced on these fine horsemen, but that cattle raising be encouraged.

"He was an Indian ahead of his time," a modern Apache said recently. "He was not beating the wind. He was beating the heart." ///



RICHARD H. KERN



EDWARD M. KERN



BENJAMIN J. KERN

The KERN BROTHERS and THE IMAGE OF THE WEST

The Kerns were topographic artists with the Fremont Expeditions. They sketched the West as they saw it, but in spite of their best efforts, the image of the West was to remain a Romantic one almost into our own day. It was a garden in its valleys, with gossamer clouds on its sharp peaks. No desert existed which given water would not bloom; no denuded hill which did not conceal some color and mystery.

By ROBERT V. HINE

Assistant Professor of History, University of California at Riverside

(This article is reprinted through the courtesy of the Utah Historical Quarterly)

FORTY-TWO ARTISTS applied for the job; the wonder was there were not more. John Charles Fremont by vividly reporting his first two western expeditions had kindled immense general excitement about his third, and in 1845 the artists appeared particularly susceptible to the call. From this horde of eager artistic aspirants Fremont chose a lanky Philadelphia art teacher, Edward Meyer Kern, known as Ned. Kern was a personable young man, full of humor, loving a joke and a good bottle. He idolized Fremont, and within him flamed a passionate curiosity about the American West, based, however, on a

very hazy picture of what it was really like.

For most men the land beyond the Ohio and the Mississippi was pure fancy. The unimaginative simply read Ohio rivers or Mohawk Indians into the blank spaces; but the imaginative had used the prose of Lewis and Clark and Zebulon Pike "to create a multiform and fantastic West."

George Catlin and Charles Bodmer helped to correct and sharpen the image in the 1830s. Their drawings proved that Mandans hardly looked like Mohawks and that the landscapes along the Missouri were as much like the

banks of the Ohio as chalk like cheese. Following them in the 1840s the headstrong, intense, soft-spoken lieutenant of the Topographical Corps, John Fremont, would four times ride west from the Mississippi. On each trip he included an artist to record the scene and to adorn his reports. The controversies that later swirled around Fremont—in the conquest of California, in the campaign for President, in the contretemps with Lincoln—obscured the fact that his finest contributions lay in further shaping the early picture of the West.

In this work one of his chief aides was to be Edward Kern, who, however,

in 1845 was the greenest of greenhorns. James Fenimore Cooper would have described him as a "single gentleman under the influence of the winds." So now on a cold and drizzling June day he rode through the tumultuous town of Westport, Missouri, and on to the prairies to join Fremont's outfitting camp. There, amid dinner pots slung over fires, loud talk, and after-meal songs, he took out his sketch pad and became the camera of the expedition, henceforth catching candid views of the men, the camps, the saddling and catching up the flora and fauna and geology of the route. His first sketches included the local Indians, such as the missionized Shawnees nearby. He wrote his brother that the Indians did not resemble in the least the drawings seen in Philadelphia. "The women are up and down like a plank board, no grace, no poetry. It wants a good deal of imagination to make them like (John G.) Chapman paints them." Ned was already discarding some fanciful ideas.

He was adding many another. Walking over the prairie one day, he picked up some ribbed mussel shells, reminders of ancient seas. He became most curious about the flowers, took a closer look at the unfamiliar ones, and probably pressed a few for future study. For a scientific friend back home he was on the lookout for a buffalo skin with the skull still in it, most likely to be used for anatomical comparisons. So in these first days he was already engaged by what would be the two masters of his life for the next fifteen years, art and science.

For seven months they tramped, mapped, and collected, to Bent's Fort, over the Rockies to Salt Lake, skirting the ridges of the Great Basin, and over the Sierra. The sweet streams of one day would be followed by alkali or salt another. Their Christmas was on a wild eastern slope of the Sierra with a yule log of yucca, and their New Year's feast was of acorns, a "swinish food" as Ned called it. They suffered Indian attacks, mosquitoes, fleas, greasy beards, and emerging ribs. But Ned also carried a growing pile of charts and sketches: *Erodium Circutarium*, *Fremontia vermicularis*, *Platanus occidentalis*, and water colors which caught "the bold outlines of the mountains grown with lofty pines and groves of aspen, dimmed slightly by the morning mists."

California during the conquest in 1846 and 1847 was unfortunately not the place of concentrated attention on art and science. Fremont's party became a part of the regular army, and Ned Kern, now a first lieutenant, was placed in charge of Fort Sutter, the manorial estate of the pompous gentleman from Switzerland. While there Ned recruited men and horses; he organized

relief for the Donner party trapped in the Sierra; but, more important for his future, he was forced into frequent contacts with Hokan and Penutian Indian groups of the Sacramento Valley.

One of his basic tasks was to protect the settlers from the Indians' hostile forays, but whenever Ned led the small garrison from the fort to punish what he called the "naked Diggers," he carried his pencils with him and brought back sketches of the natives, including buxom women, unclothed except for light grass skirts, gathering, cleaning, or carrying grass seed. Some years later in 1853 Henry Rowe Schoolcraft asked Ned about California Indian customs, and he responded with three handsome drawings of natives preparing food. In an accompanying article he added some appreciative remarks on their crafts: "In the manufacture of their baskets and socks, they display much neatness and taste, particularly in those covered with feathers, generally, from the summer duck, and scalps of the redheaded wood-

Kern: River, County: Kernville. Kern: Canyon, Flat, Hot Springs, Lake, Peak, Point, Ridge: Little Kern River, Little Kern Lake, Kern-Kaweah River. The name of the river was given by Fremont in 1845 for his topographer and artist, Edward M. Kern, of Philadelphia, who narrowly escaped drowning while attempting to cross the stream.

—"California Place Names"
by Erwin G. Gudde.

pecker. . . ." But the punitive nature of the marches had left another impression, for he also said, "Treachery and theft, as with all Indians, form part of their creed."

On Kern's return to Philadelphia in early 1847 he was a center of considerable interest, especially among scientists. Two of his older brothers, Benjamin, a physician, and Richard, an artist like himself who had recently been accepting commissions for anatomical and botanical drawing, had frequent contacts with important local scientists like Joseph Leidy and Joseph Carson. Ned, through these introductions and his own new empirical knowledge, became part of a scientific circle, and within the year all three Kern brothers were elected to membership in the Philadelphia Academy of Natural Sciences.

Ned's active progress, however, as artist and scientist was not again resumed until the year after his return to Philadelphia, when in 1848 he joined Fremont again. The outfitting camp outside Westport was considerably different. It was fall, October, with goldenrod on the

prairies rather than spiderwort. The cottonwood leaves were turning and the prairie wind bore a chill. This time the party numbered Ned's brothers, Richard and Benjamin, as well as himself and some thirty others. They were heading in winter for the wild peaks and sharp ridges of what is now southwestern Colorado to prove a feasible route for a railroad.

"Everything went off well with the exception of some packs on wild mules and they went off too." So Dick pictured the beginning of the rhythm of shivering predawn breakfasts, straying animals, gumbo mud, and the night fires. The unmanageable packs bulged with surveying instruments, cans and kegs and presses for collecting, and alcohol mixed with tartar emetic to prevent its preserving men rather than specimens.

Ned, compared to his brothers, was now calloused, inured, enjoying the taste of prickly pear, even beginning to think like a mountain man: "Godey today killed two (buffalo) cows, and we had a glorious mess of guts. . . ." He continued to sketch enthusiastically — the front face of a bull, daily camps, the Kiowas and Arapahoes passing along the Arkansas—and at night he and Dick would draw by the firelight, their tears from the wood smoke watering the colors.

As befitting members of the Pennsylvania Academy, the scientific senses of all three brothers were alert on a wide front. They could make their friend Joseph Leidy happy with word of any new variety of lizard or mouse; Joseph Carson would be pleased to hear of any uncatalogued plants, especially those believed by the Indians to have medicinal properties; Samuel Morton was anxious to get some Indian skulls for comparative purposes. All of the Kerns filled their journals with scientific descriptions of clouds, flowers, and animals.

Already on November 3 they ran into driving snow, and when they reached the Arkansas River the current bore chunks of ice. It was only the beginning of an exceptional winter and a tragic story. The small group of thirty-three men which entered the deep, storm-racked canyons of the Rockies emerged at the New Mexican settlement two months later like stunned souls before judgment. A third of them were left in the snow, dead. The others had survived starvation and cold only after an agonizing tour through the environs of death.

The tragedy, unfortunately, was not finished. Benjamin was to die in a grievous sequel. He and Old Bill Williams, the guide, headed back into the snow-packed mountains to retrieve the cache of supplies and belongings which was their only hope of soon getting



LAGUNA PUEBLO AS IT WAS FIRST SKETCHED BY ONE OF THE KERNS . . .

home. They found the possessions — clothes, surgical instruments, medicines, drawing equipment, sketches, bird and plant collections, perhaps even a little money—but on the return trip twelve Ute Indians attacked and murdered them, scattering the packs.

Ned and Dick were left penniless and stranded. "The clothes we have on our backs is all we have saved." But fortunately their skills proved much in demand in New Mexico. The army was engaged in the herculean task of mapping the whole province newly acquired from Mexico. When Lieutenant James H. Simpson, Topographical Corps, arrived in Santa Fe with reconnaissance orders, he could thank his guardian angel at finding on the scene two trained artists and topographers to help him. He hired the Kerns immediately. Their first task with Simpson was to map uncharted Navajo country on a punitive march with the army. It was a rich opportunity to observe Indians in undisturbed native haunts. How many men did they know at the academy in Philadelphia who would have given an arm to be thus contacting Pueblos and Navajos! Moreover, the Kerns would measure a few more skulls for Morton; snare some strange lizards for Leidy; and capture for their own delight any number of bright birds from a *terra incognita*.

During 1850 one topographic job led

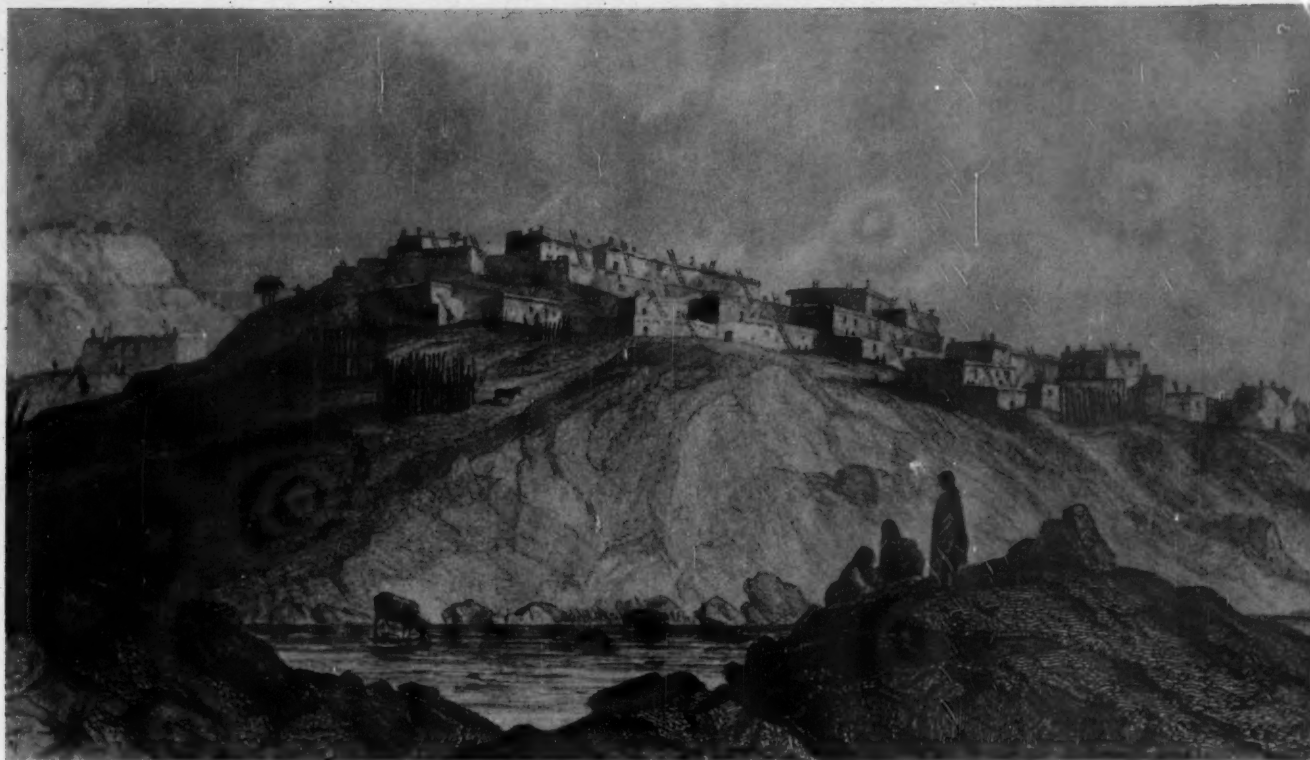
to another: ascertaining sites for army posts, reconnoitering for dependable supplies of water, wood, and forage grass. The Kerns were hired by each successive officer of the Topographical Corps in New Mexico: Lieutenant James Simpson, Lieutenant John Parke, and Lieutenant John Pope. Finally, in the summer of 1851 they each took surveying jobs which ushered them out of New Mexico on the long trail home. For Dick it was a westward assignment with Lieutenant Lorenzo Sitgreaves and Lieutenant John Parke to survey the Zuni and Colorado rivers. For Ned it was north and east, blazing an improved route between New Mexico and Fort Leavenworth.

Thus, although the Fremont fourth expedition was a bitter episode, it forced them into experiences which broadly expanded their knowledge of the West and gave them an opportunity to carry the image they were creating to a wider audience. In James Simpson's report on his trip from Fort Smith to Santa Fe, two Kern lithographs appear, one a scientific study of a fish with legs (what strange monsters will these western lands reveal?); the other, one of the earliest views of Santa Fe. Simpson's account of the Navajo expedition was studded with both black and white and colored Kern lithographs. There were Pueblo Indians in ceremonial and in everyday

simple dress, in individual profile or in group religious rites; there were reconstructions of pueblo ruins, pottery patterns, and rock inscriptions; and there were views of precipitous passes in the Tenecha Mountains and the barren deserts around Chaco Canyon. To Lorenzo Sitgreaves' record of the Zuni and Colorado River expedition, Dick added numerous sketches of Zuni weavers and blacksmiths, views of the Colorado, and sagebrush rolling into infinity.

Home again, the Kerns were courted by the artistic and scientific worlds. Dick wrote that fellow artists looked at him "with veneration because I've seen such places." He and Edward were in demand as authorities on Indians, western flora and fauna, they were sought to discuss routes for a transcontinental railroad, and their packs of birds and insects and bones bolstered the collections in the glass cases of the Academy of Natural Sciences, while their stories must have livened many a session in its library and halls.

Dick's interest in the transcontinental railroad route caused Ned facetiously to call him the "Chief of Roads." There was truth in the joke; and even the United States Congress heard Dick's opinions quoted. Captain John Gunnison chose him as artist for the railroad survey over the thirty-eighth parallel.



... THE SAME VIEW AFTER THE LITHOGRAPHERS HAD SUPERIMPOSED THEIR OWN IDEAS UPON THE WORK OF THE ARTIST.

For Gunnison he drew some splendid scenes of the Cochetopa Pass and the Sangre de Cristos which appeared with others in the second volume of the *Pacific Railroad Reports*, but they were his last contribution to an image of the West. In the Sevier Valley with Captain Gunnison and six others he was murdered by Ute Indians. And how near to the bones of Ben!

Edward's days with the West were also closed. Hereafter his talents were expended for the navy in the far Pacific. His return from Japan in 1860 was followed by a short service in the Civil War after which he died in Philadelphia in 1863.

The Kerns had flourished in an age of artistic Romanticism. Thomas Cole and Thomas Doughty, Thomas Birch and Jasper Cropsey—these were among the Romantic painters whose works the Kerns absorbed during their youth. Well they knew the Hudson River school of landscape with its moody evocations, and the wind from the American West (was it Shelley's wild west wind?) blew in the same intellectual direction. A later group of Romantics, like Albert Bierstadt, substituted the Rocky Mountains for the Hudson River; the scene changed but not the technique and the moods. The West was attractive to Romantics for one reason, because it was still little enough known to be sub-

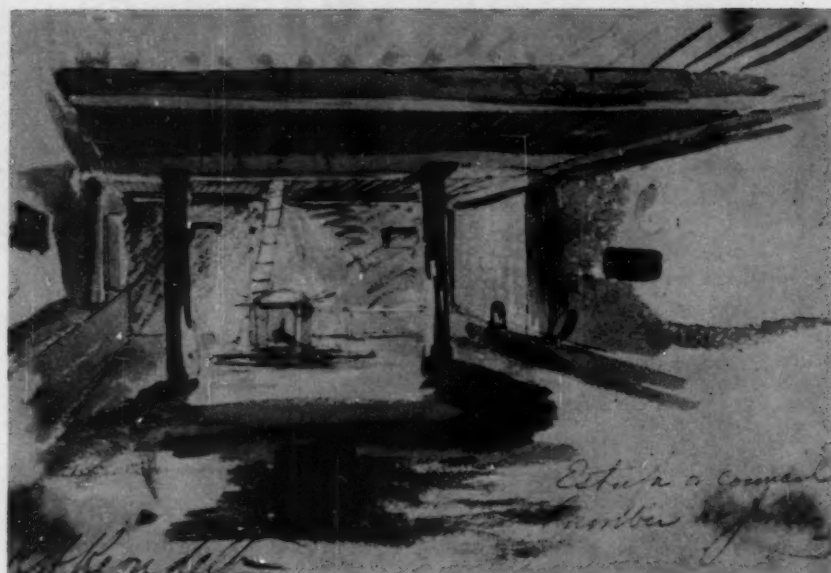
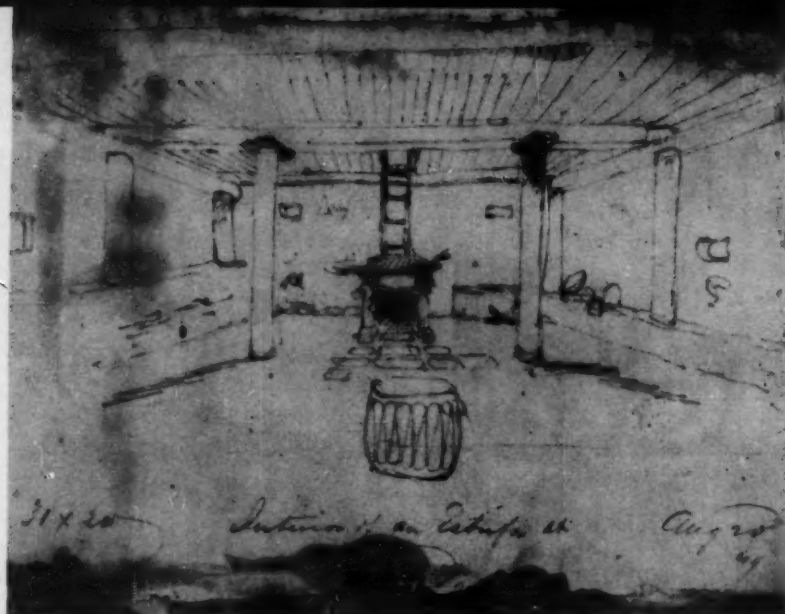
ject to legend. The trans-Mississippi West, like the fountains of Bimini or the pearls of Calafia, was still the stuff of dreams. In the Kerns' day the myth of the Great American Desert was being supplanted by the myth of the Garden of the West, while the myth of the Noble Savage continued its traditional clash with the myth of the Villainous Indian. But all were myths and all were Romantics; they were emotions and wishful thinking, not rational judgments of fact.

To what extent did the Kerns as topographic artists Romanticize their image of this West?

In this connection the important thing to remember about men like the Kerns is that their purposes were scientific and reportorial. Simpson or Sitgreaves or Gunnison, who hired them, did so because, as Fremont said, they could "hold those lovely views in all their delicate coloring," that is, report the scene exactly as it was seen. It is interesting to note that Eugene Delacroix, the French painter, was employed about the same time to illustrate for a diplomatic mission to Algiers. His resulting "documents," however, were highly Romantic, imaginative interpretations of an exotic land. The Kerns, even if they had had the skill of Delacroix, had none of his inclination to interpret Romantically.

They themselves held few illusions about the West. They were intensely curious, but their natural reactions tended to be skeptical with a liberal laugh for the overblown. Nothing in any of their writings remotely approaches Catlin's description of Indians "whose daily feats with their naked limbs, might vie with those of the Grecian youths in the beautiful rivalry of the Olympian games." On the contrary, the Kerns not only, as we have seen, depicted some Indian women as "up and down like a plank board," but found whole tribes, like the Mojaves, ugly, dirty, and villainous. They did evaluate Cheyenne art work or Pomo crafts with real appreciation, but never did they see the West in terms of idealized Indians surrounded by an exotic land.

Yet judging from the lithographs taken from Kern sketches, the brothers seem frequently to stylize and exaggerate for effect, rather like F. W. Egloffstein who followed them into the Southwest. Dick's tall, balloon-like version of the cliffs above Casa Blanca in Canyon de Chelly are as fantastic as were Egloffstein's engravings of brooding Grand Canyon spires. This, as Wallace Stegner has said, was not falsification; it was what the Romantic vision actually saw. Nevertheless, it was not realism, and the Kerns might seem, therefore,



NOTE CHANGES IN PERSPECTIVE OF THE SKETCH (TOP) BY RICHARD KERN OF A KIVA AT THE JEMEZ PUEBLO. FROM THE FIRST SKETCH TO THE FINAL ENGRAVING (BOTTOM), THE ROOM HAS BECOME LONGER AND WIDER. THE LITHOGRAPHER ADDED HUMAN FIGURES AND PATTERNED POTTERY.



to have succumbed to Romantic influences.

But not necessarily so. One of the curious things about the Kerns' work is that few of these exaggerations are present in the original sketches and drawings; they appear rather in the subsequent lithographs and engravings. The transition here from sketch to lithographs is important. Few artists made their own lithographic stones. In most cases an eastern firm like Duvals of Philadelphia or Sarony of New York would etch the slate, presumably in the process following the sketches as closely as possible. The 1840s and the 1850s were the golden age of lithography, and each lithographic house catered to a wide public. This meant, for one thing, that the lithographers tended to develop their own individual styles which became almost unconsciously superimposed on the work of the artists. It also meant that when certain details had to be supplied to a sketchy drawing, the lithographer was apt to depict his own concepts or those which he felt would please his audience. Thus when Ackerman in New York rendered Dick's sketch of a New Mexico blacksmith shop, he completely changed the perspective, vastly enlarged the room, and clothed the Indians like European medieval artisans.

The Kerns, as scientists might be expected to do, drew the West as they saw it, not through the mist of Romanticism. But those who rendered their drawings into published form were not above revision into a mold more readily understood. It is but another example of history written in the likeness of its final recorder, who sees—and probably has no choice but to see—only those things which he already knows.

Even more important, it was the prints not the original drawings which were most responsible for molding the image in the popular mind. For every one original painting, there were lithographs, sold for a quarter or less, hawked through the streets from carts by the thousands. More thousands were studied in the government reports of Fremont, of Simpson, of Sitgreaves, or of Gunnison.

So, almost in spite of topographic artists like the Kerns, the image of the West was to remain a Romantic one for a long time, at least until John Wesley Powell, if not into our own day. It was a garden in its valleys, with gossamer clouds on its sharp peaks. No desert existed which given water would not bloom; no denuded hill, which did not conceal some color and mystery. The Kerns did not see it that way; they were more scientific in their orientation. But their voice might as well have been raised to stop that wild west wind from trumpeting its prophecy. ///

MORE ON THE IMAGE OF THE WEST:

TWO ARTISTS; TWO IMPRESSIONS

ONE OF THE most persistent refrains in the history of Western art is the old story of the talented Eastern painter harboring a childhood longing for the spacious West, realizing his dreams in a temporary or permanent move to the West, and once here, making a reputation for himself as a chronicler of some particular phase of the colorful, varied and inspiring Western scene.

Such an artist was Frederic Remington, the 100th anniversary of whose birth we pause to remember this month of October, 1961. He left the East in 1880 with sketch pad in hand. When his life's work was done (Remington died at 48), critics said of him that he had "captured the aroma of the West."

And such an artist (although perhaps on not so lofty a plane as occupied by Remington) is Gerard Curtis Delano whose painting, "Navajo Shepherdess," appears on the cover of this magazine. Navajos are Delano's favorite subject, and the basis of his somewhat unique station in Western art is: "He captured the nobility of the Navajo."

Delano began drawing "Indians on horses" as a four-year-old in New England.

"Today, that is still my favorite subject," he says.

Working as a clerk in a New Bedford sporting-goods store by day, and studying art at night school, he soon graduated to designing textiles and women's fashions. Later, he went into free-lance humorous caption drawing for the old magazines *Life*, *Judge* and *Puck*. All during this busy time, the king-size dream persisted: "Someday I will paint the spacious West."

After serving in World War I, Delano obtained a job with an advertising agency. "When work slackened that summer, I found my first chance to go West, and so I went," he relates. "On a Colorado cattle ranch I learned to ride, and I found there the kind of subjects



FREDERIC REMINGTON'S "LUNCHEON IN THE DESERT"



GERARD CURTIS DELANO'S "THE DISCUSSION"

I wanted to paint as a magazine illustrator and cover artist."

Remington, in his 1880 trek, was immediately aware that the days of the frontier West were limited. The West was changing before his very eyes, and he had to work fast. The West that his genius created was as unromantic on canvas as it was in actual fact. Remington's cowboys needed baths; his soldiers were only life-size and unmilitary; the mountains were rugged, the deserts dusty, the waterholes foul.

Delano's career has had many sharp ups and downs. His magazine venture sagged with the Depression, so he



REMINGTON: "DON GOMEZ AND HIS LANCERS AT OCHOA SPRING"



DELANO: "THE LADIES ARE GOING TO TOWN"



REMINGTON: "MARCHING IN THE DESERT"

returned to Colorado and a modest homestead where he was pleasantly surprised to discover that he could "live well, even on a year's total income of \$400."

Delano met the Navajos, some of whom "lived well on \$4 a year." Industrial America was hurting, but the Navajo was little affected. He had his magnificent domain; he had his string of ponies; he had his mutton on the hoof; he had his loving family; and he had his meaningful life. Was this then, the core of what the West would mean for Delano?

He did a 102-week series for a national magazine on "The Story, of the West." Each drawing, with a page of copy, illustrated one of the highlights of the development of the West. After the series, Delano turned to selling individual paintings. His free-lance art career blossomed and then wilted, so he went into the large-scale reprint business, acting as his own salesman. Again the pattern repeated itself: rise, decline.

A deeply religious man, Delano searched his conscience for an answer to his repeated economic plight.

"I realized that all my efforts thus far had been solely with the idea of self-advancement," he said. "Now I felt it important to change my point of view to that of rendering a service to and for God.

"My thoughts changed from getting to giving. God had given me a talent with which to create beauty, and this was what He wanted me to do."

Delano returned to hard work—and the Navajo.

Remington's passion was to show the dynamic West as it really was. He was a documentary artist. He was meticulous. When he painted a trooper and his horse, it was a particular soldier who lived and breathed and had a name; and the horse was unique in a world full of horses.

Delano's passion is to pass on the inspiration he has found in the West of his boyhood and manhood dreams.

His nightly prayers, during the time of his life when his art career seemed doomed, contained this, entreaty:

"God, give me the power to paint pictures better than any I've ever done, paintings so fine and so beautiful that people will love them and be inspired by them."

From Remington we have "men with the bark on"—sweaty, dusty, dressed for the trail, tough, ready at a moment's notice to work, play or fight.

From Delano we have stately Navajos at a placid waterhole, silhouetted against an orange cloud; a bronzed athlete executing smoke signals with a brilliant red blanket; a Navajo shepherdess passing through a dramatic sky.

Today Delano lives and prospers in Denver. Visitors to his studio often ask whether he paints on order or on speculation.

"Neither," he answered. "I paint on faith."

Although Remington's West and Delano's West are startlingly different realms, the observer recognizes them as emanating from the same amazing country. It is significant to note that Remington and Delano and countless other artists have withdrawn from the reservoir of Western subject matter what they would; but enough remains for legions upon legions of American artists still unborn. These artists of posterity will look Westward for whatever special satisfaction to their personal souls they will believe awaits them in deep canyons, windy mesas, towering mountains and the changing desert.—EUGENE L. CONROTTO

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DESERT WOODPECKERS

By EDMUND C. JAEGER

author of: "Desert Wildflowers,"
"The California Deserts," "Our
Desert Neighbors," "The North
American Deserts"

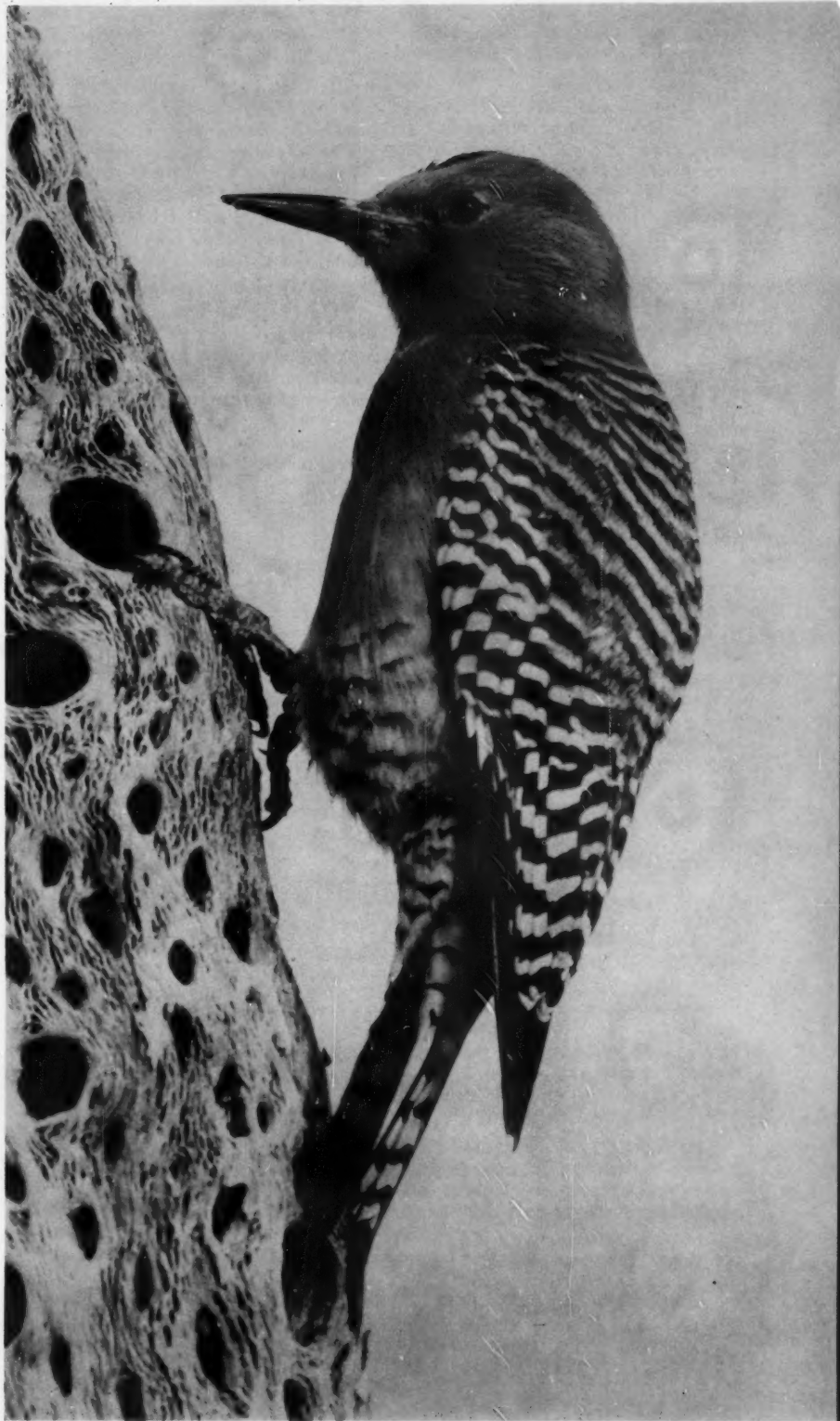
WOODPECKERS ARE very clever and adaptable birds. We should not be over-surprised to find them making a place for their activities in the somewhat barren and dry deserts. At least three kinds are year-long desert residents; two others are winter visitants only.

If you are traveling in the agave and yucca country anywhere from western Texas to southeastern California or in Baja California, you are certain sooner or later to see the jaunty little Ladder-backed Woodpecker (*Dryobates scalaris*). Some other names it has (many of them quite local): Texas Woodpecker, Speckle-check, Cactus Woodpecker, Baird's Woodpecker and San Lucas Woodpecker. There are at least 15 subspecies, each just a bit different from its fellows. All are small birds (about 7½ inches in length), and have barred black-and-white back and outer tail feathers. The inner tail feathers are black.

The Ladder-back is shiest of all the woodpeckers that inhabit our arid lands throughout the year. When it spies you, it is quite likely to sidle around a yucca or agave flowering stalk till it is hidden from view. It is a creature "thoroughly of the wild," staying quite apart from places haunted by man. More often it is heard than seen.

The call note is a distinctive one—thin, sharp and short; occasionally it is repeated. In the mating season the birds are more noisy; the ordinary note being supplemented by a variety of others, none of them musical.

Sometimes you may see where the birds have chiselled out their nest cavities in the tall, pithy flower-stalks of yuccas and agaves, usually in stalks of the previous season. The opening to the nest shaft is only about 1¼ inches in diameter, and placed well up. The 12-inch excavation is made



GILA WOODPECKER. Photograph by J. Fred Dodson. For a discussion of Dodson's birdlife camera technique, see page 30.

downward in the strong straight stalk, and at its bottom on a bed of chips, residue of the chiselling, the four or five small white eggs are laid.

A nesting pair of Ladder-backs, which I had under observation on the slopes of Pinyon Mountain in the Anza-Borrego State Park in California, brought me many moments of pleasure. The time was late April. Using an improvised set of mirrors as a periscope, I was able to look down upon the clutch of shining, pearly-white eggs just after the set was complete. The male and female birds took turns at sharing the incubation duties, but the male was the one that did the scouting about to watch for intruders. His sharp call notes were ones of warning and assurance.

One morning about 8 o'clock, I suddenly heard notes rapidly repeated, and I saw much commotion of the birds in the agaves near the nest. I soon discovered an antelope ground squirrel, sometimes called "ammo," in the arms of the flower stalk near the bird nest. Apparently the ammo had climbed this perch to search for a few viable seeds in the dried seed capsules. It all looked innocent enough, but I was suspicious that the dapper bright-eyed rodent now had other thoughts in mind—namely, to plunder the nest of its eggs. Since my sympathies were very much with the birds, not wishing their effort to raise a family come to a sad end, I frightened off the ammo.

This appealing little woodpecker of the cactus country is sometimes called Baird's Woodpecker, and is so listed in some of the older bird books. It was first described by Materbe, a French ornithologist who wrote a four-volume treatise on woodpeckers. In the subspecific name, *bairdi*, the Frenchman sought to honor Prof. Spencer Fullerton Baird, second secretary of the Smithsonian Institution.

Two desert woodpeckers are called Flickers—the Red-shafted (*Colaptes cafer collaris*) and the Golden (*Colaptes chrysoides mearnsi*). Both have diverged from the typical woodpeckers in their habits, often spending much time on the ground, and occasionally perching crosswise on the branches of trees like ordinary passerine birds. Their flight is undulating; their beaks are rather slender and weak for a woodpecker. The Red-shafted Flicker occurs widely in forested areas of the Western United States, but many spend their winters in deserts of the Southwest, whereas the Gilded Flicker (often called Mearns' Gilded Flicker) is a year-

long resident, largely confined to the giant cactus country from Arizona to southern Sonora and Baja California.

As to body markings, Mearns' Flicker is very much like the familiar Red-shafted Flicker except that the former's wing and tail linings and feather-shafts are yellow rather than reddish-orange. Both birds have a prominent black crescent on the chest, bold spots of black on the underparts, and very conspicuous white rump-patch.

The Red-shafted Flicker is an ant eater in a big way. The Gilded Flicker feeds somewhat on ants too, but to a large extent it lives on the fruit of the giant cactus and on insects found within that plant's handsome flowers. Berries of the leafless mistletoe, so



CACTUS or LADDER-BACK WOODPECKER

abundant on mesquite and ironwood trees, are eaten too.

What a gift of nature to desert creatures, large and small alike, is the mistletoe. In times of drouth, mistletoe is often the only ready source of liquid for thirsty birds and small mammals. The pearly-white to coral-pink berries are not only juicy with sap, but nutritious as well. Luckily, the mistletoe grows up high where the birds find a safe place to feed. The inner seed is not digested and passes through the digestive tract of the eaters without losing viability.

The Gilded Flicker generally builds its nest in an excavation made high in the stout columnar trunks of the giant cacti, be they saguaros or cardons. However, he is a rather adap-

table bird and may nest in cottonwood and sycamore trees as well, where excavating is a much tougher job.

The eggs are pure white. These birds, like other woodpeckers, have no reason to have camouflaged eggs, since they are laid in dark cavities where they are not conspicuous. Other hole-nesting birds, such as the kingfishers, also lay white eggs. (It is interesting to note that a few hole-nesters—chickadees, wrens, nuthatches and bluebirds—which lay spotted or colored eggs are thought to have come to a hole-nesting habit only recently, and that their long-ago ancestors built their nests in the open.)

A ludicrous sight met my eyes a few weeks ago when a Gilded Flicker alighted on the ground near my camp and began feeding on small ants issuing forth in great numbers from a crack in the hard earth. To facilitate this work, the bird enlarged the opening with a few vigorous whacks of his big beak. This done, he gave a circumspect look around, then began tonguing-up the ants which swarmed onto his long glutinous tongue. He was able to work his tongue in and out, and to devour the insects as fast as they came forth. Other ants, returning from the feeding ground, annoyed the bird by crawling over the big feet he had planted squarely over the ant domicile. Whenever the moving ants became unbearable, the bird would suddenly stop feeding and vigorously stomp his feet, performing a queer dance that momentarily rid him of his insect tormentors. This allowed him to again feed in comfort—but just for a few seconds. Then the "dance" was repeated. The ant colony suffered considerably from the bird's feeding activities.

As with all flickers, the Gilded Flicker is a heavy, rather awkward bird with undulating flight, and not too graceful movements on the ground, where it progresses by a series of bounces. At rest, it squats rather than stands.

The call note of this friendly bird neighbor is so loud it is almost startling. It consists of a forceful "ker-yer." At other times, it utters what the English farmer calls a "yaffle," a rapidly uttered, always vigorous, "if-if-if."

Those familiar with Southwestern natural history cannot help but be impressed with the frequency in which the name, Mearns (and the Latinized form, *Mearnsi*) appears in the literature dealing with our birds, mammals and reptiles. A good name it is to have set before us, for it hon-

ors the memory of an able student, collector and gifted writer who did so much important work in the desert regions, especially that territory adjacent to the U.S.-Mexican boundary.

More than 160 birds were first described and named by this ambitious and scholarly physician. In Edgar E. Hume's book, *Ornithologists of the United States Army Medical Corps*, 28 pages are devoted to Mearns' interesting and colorful accomplishments. Dr. Mearns' most important literary work was his *Mammals of the Mexican Border of the United States*.

Wrote his biographer: "As a gatherer of material for use of specialists in systematic zoology and botany, Mearns made his great contribution to the advance of learning, and unquestionably outdid every other American in his particular field of activity. His zoological additions to the national collections number approximately: Mammals, 7000; birds 20,000; reptiles 5000, fishes 5000. At the time of his death (1916) his contributions to the National Herbarium were greater than those of any other man. More than one-tenth of the total number of (bird) specimens in the U.S. National Museum were either collected or contributed by him."

Mearns was a man of small build, but one showing the greatest stature in regard to ardor, diligence and industry—and this to the last of his days. He collected widely, not only in the United States but in the Philippines and Central Africa as well. What finer tribute could be paid to a man than to have so handsome a creature as the Mearns' Gilded Flicker named after him?

The Gila Woodpecker (*Centurus uropygialis*) is the typical woodpecker of the broad flats and mesas of southern Arizona south through western Sonora, where creosote bushes, cholla and giant cacti hold forth. This bird is common also in the river bottoms and canyons where trees such as willows, sycamores and cottonwoods grow. Says Arthur C. Bent: "The Gila Woodpecker is not only the most abundant woodpecker, in fact one of the most abundant birds, in the region it inhabits; but it is more conspicuous, noisier and more active than any of its neighbors. It is always much in evidence, always protesting the intrusion of a stranger; and shows greatest concern when its nest is approached, especially if it has young."

This medium-sized woodpecker with grayish brown head and crown-

patch of red (in the male) has the whole back and wings barred with black and white. The belly is golden yellow.

It is an omnivorous feeder, taking insects, grain and berries, and is rightfully accused of being a greedy eater of bird's eggs, large and small, often resorting to stealth and tricks to get them.

Its favorite nesting sites are in the giant cacti; the trunks of soft wood trees are a second choice. Once made, the excavation (often nine to 15 inches deep) is used season after season—provided some owl or other ambitious bird doesn't take possession.

French Gilman, old friend of mine, an able and delightful writer on Arizona birds, spoke of the Gila Woodpecker as a bird "with not the best disposition in the world for he is very quarrelsome and intolerant. He fights his own kin and all the neighbors he dares. He, or she, is a great bluffer however and when 'called' frequently sidesteps, subsides or backs out entirely. I saw one approach a Bendire Thrasher that was eating, and suddenly pounce on him. He had the thrasher down and I was thinking of offering my friendly services as a board of arbitration when the under bird crawled from beneath and soon gave the woodpecker the thrashing of his career."

The common call note of the Gila Woodpecker is a sharp shrill "huit, huit" uttered as the bird flies from one point to another. It has been compared to the usual call note of the Phainopepla, and sometimes may be mistaken for it.

Amid the thickets of willow, cottonwood and mesquite trees along river-bottoms of the low deserts of Arizona and southeastern California in wintertime, you may see the Red-naped Sapsucker (*Sphyrapicus varius nuchalis*); and also discover where it has girdled the tree trunks with its numerous small drill-holes. It feeds on the sweet juices that issue from these "sap wells," as well as on the insects that are attracted by this liquid. The short tongue is especially fitted with a brush-like tip to take up the sap as it collects.

The breast, throat and crown of the small handsome relative of the Eastern Red-naped Sapsucker are bright red. The red on the back of the neck is separated from the red of the head by an area of black. On the sides of the head are stripes of white. The back and wings are black, with many white marks of various shapes.

The summer home of this attractive bird is in the high altitude mountains among the aspens. Here it builds its nest. Writes Mr. Bailey: "In the nesting season at least the sapsuckers are extremely noisy active birds, striding up the tree trunks, calling loudly in tantalizing tones and chasing each other about in fine spirited fashion." Although so small for a woodpecker, it is an apt chiseler and driller but not the noisy pounder of its larger relatives. It descends to the desert lowlands in late autumn there to be listed among our winter bird visitants. During the winter season it is practically a silent bird. ///



WANT TO
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PAGE ➞

ARIZONA CARDINAL

HOW TO TAKE GOOD PICTURES OF BIRDS

By J. FRED and FRAN DODSON



PALMER'S THRASHER

WHEN WE WENT to spend our first winter on the desert, we were eagerly looking forward to enjoying the mild climate, flaming sunsets and exotic flowers. An added attraction we did not anticipate has been the birds. Only a pair of friendly Cactus Wrens and a Curved-bill Thrasher were there to greet us, but when feed and water were made available, the news quickly spread, and each day brought new boarders.

By spring we could sit in the open yard but 25 feet from where dozens of Desert and White-Crowned Sparrows, Finches, three kinds of Doves and many other bird neighbors would feed on scattered grain. Cardinals would fly in for sunflower seeds, while Flickers and Gila Woodpeckers searched for hidden nutmeats and suet. And it was gratifying to see the Gambel's Quail come with their broods of tiny young, and feel safe in our presence.

All this was very pleasing to the eye, but in a photograph the birds appeared as mere specks. We decided to try some close-up shots that would show more distinctly the markings and feather detail of the individual bird visitor.

An important tool for this kind of work is a remote control mechanism so the camera can be placed close to the subject and operated from a distance. Tripping the shutter with a string or pneumatic cable release is too slow for birds. An electric tripper or solenoid connected to the camera shutter does the job. One end of a double wire is connected to the solenoid; at the other end is the battery and switch. When the switch is operated, the circuit is closed, the solenoid operates the shutter, and the exposure is made.

For the press or view camera, the purchase and installation of a solenoid is a simple matter; but for most other types of cameras, including the popular 35 mm. size, your favorite camera store will be of little help in supplying an automatic tripper, and you will have to depend on your own ingenuity or that of a technical-minded friend. We made a tripper for our 1000F Hasselblad camera, using a heavy solenoid and some scrap parts, including a part taken from the mechanism of a window lock. Works fine.

Two 50-foot lengths of two-wire extension cord are used so that two cameras can be set up at the same time, if desired. We

used heavy gauge wire so resistance to current would be low.

For power, a box was made to hold three six-volt lantern batteries (available at hardware stores). These were connected in series by gluing copper strips to the inside of the lid, placed so that proper contact will be made when the cover is fastened down. The box is also provided with two outlets and two switches, and wired so that all 18 volts can be used for the Hasselblad, and only six volts with the press camera. While toggle switches are more positive, the push-button type was used because we think they are faster to operate. A split second may mean the difference between success and failure when working with birds.

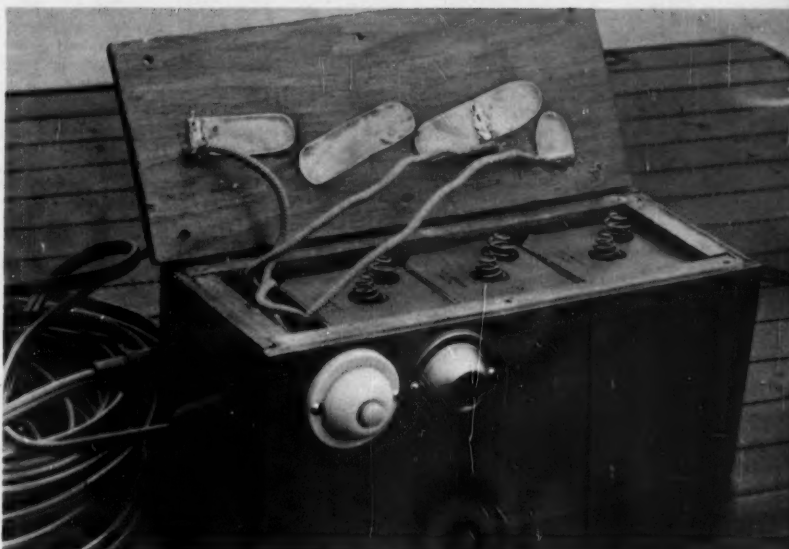
Birds soon get accustomed to having a camera at close range, but the Cardinals and a few others are frightened by flash, and soon become camera shy. Because of this, most of our close-up shots have been taken by sunlight.

The Hasselblad is used mostly with a telephoto lens. If placed too close to the bird picture-subjects, the noise of the reflex mirror causes them to move before the exposure is completed. On the press camera, the solenoid and linkage is kept covered from view, otherwise the bird will often detect movement in time to spoil the picture.

A roll film back is used on the press camera. It is faster to use, cuts cost, and the film is easy to process. The 240 mm. Tele-Xenar lens fills the $2\frac{1}{4} \times 3\frac{1}{4}$ frame nicely at about five feet, and you don't have to get too close to the bird.

Getting a bird into position to photograph poses a real problem. A feeding bird is never still, and with a beakful of food is not very photogenic. One method to overcome these factors is to place a perch near the feeding place upon which the bird may light and pose gracefully for an instant (we hope) before hopping down to eat. We compose and focus carefully on the small print of a film box placed on the perch, remove the box and then fall back and await the first bird. Remember to choose a pleasing background. Focusing should be critical when using a telephoto lens.

Some birds are not easily lured into camera range with food. The wily Roadrunner is an excellent case in point. Several weeks were spent trying to photograph this un-



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predictable denizen of the desert. One day we sat in the car while one was feeding not far away. Would it come close enough for a telephoto shot? Suddenly it darted toward us, passed beneath the car, and with the familiar *crut crut crut* literally "gave us the bird" in paisano language as it disappeared into the mesquite.

Sometimes it takes inexhaustible patience to combat the inexhaustible whims of the birds. Perhaps the relaxing arm-chair method we have outlined in this article suits your tastes in wildlife photography. Just put out the food, focus on the perch where the bird will be, and sit back and wait. Of course, nine times out of 10 the bird will light somewhere else. But then, you still have the flaming sunsets. And the flowers.

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WORLD'S CHAMPIONSHIP Wild Burro Race—Beatty, Nevada to Stovepipe Wells Hotel in Death Valley, November 8, 9, 10 and 11. Businessmen, Clubs—sponsor an entry in this wildest, wild burro race—only \$150. Also need wranglers to lead these wild burros during three-day race. \$1500 prize money. Inquire: Beatty Lions Club, Beatty, Nevada.

Southwest Calendar

Sept. 30-Oct. 1: Apple Days, Julian, Cal.
Oct. 3-8: San Bernardino County Fair and Gem Show, Victorville, Calif.
Oct. 6-8: Graham County Fair, Safford, Ariz.
Oct. 7-8: Colorado River Cruise, Blythe to Yuma.
Oct. 7-8: Whittier Gem & Mineral Society Annual Show, Palm Park Community Center, Whittier, Calif.
Oct. 7-8: San Fernando Valley Mineral & Gem Society Annual Show at Victory-Van Owen Recreation Park, North Hollywood.
Oct. 12: Merchants' Fair at Warren Ball Park, Bisbee, Ariz.
Oct. 14-15: Motorcycle Meet, Twentynine Palms, Calif.
Oct. 14-15: National Inboard Championship Races, Lake Mead.
Oct. 14-15: Searles Lake Gem & Mineral Society Annual Show, Trona, Calif.
Oct. 19-22: (Tentative) Unlimited Hydroplane Races, Lake Mead.
Oct. 19-22: Pinal County Fair, Casa Grande, Ariz.
Oct. 20-22: Helldorado and Fast Draw Contest, Tombstone, Ariz.
Oct. 21-22: "Days of '49ers," Compton Gem & Mineral Club Show at Fred Leuders Park, Compton, Calif.
Oct. 21-22: Festival of Flowers, Tamarisk School, Palmdale, Calif.
Oct. 28-29: Annual Papago Rodeo, Sells, Ariz.
Oct. 31: Nevada Day Celebration, Carson City.
Oct. 31: Annual Mardi Gras and Fair, Barstow, Calif.

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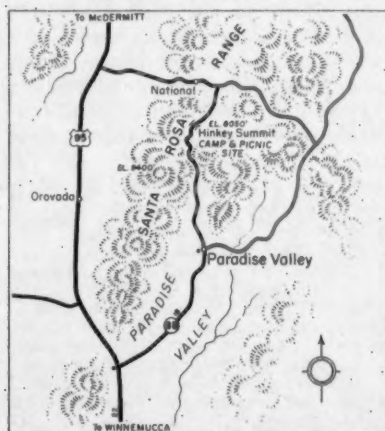
OCTOBER IS THE month to go to Paradise—to Nevada's Paradise Valley, that is, where the autumn sun seems to belong to the lovely broad valley and its fascinating little town. In October, the tan-brown colors of fall begin, and the nights are chilly.

Steeped in history, Paradise Valley lies close to the towering Santa Rosa Range in the northern part of the Silver State, an easy 40 miles of pavement from Winnemucca. You can stay on the paved roads if you want, and merely feast your eyes (and camera) on the town's fine old buildings and glorious old trees. Or you can set off for the far country on good dirt roads to camp and roam the shady wilds of Hinkey Summit. There are old mines and an old flour mill in the area, and the sites of two ghost towns which nine decades ago rivaled Paradise City itself. All are worth visiting.

You get to Paradise by turning north on U.S. 95 from U.S. 40 at Winnemucca, driving the easy 22 miles to the intersection of Nevada's Highway 8-B which takes you 18 paved miles into the town whose every other building recalls an 1866 founding. Paradise Valley no longer has hotel or restaurant, but Ernest Miller's store is modern and accommodating, although the store building is antique. Mr. Miller himself is a gracious person, never too busy to talk to visitors and tell them something of the valley, past and present.

The past was a rough one, belied nowadays by the peace of the town and the immense prosperity of the big cattle ranches scattered throughout the Valley. The first white men saw this place from the rugged summit of the Santa Rosas in 1863 after days of hard prospecting. One of them, W. B. Huff, stared down incredulously at the lovely basin, lush with wild grass and sparkling creeks. "What a Paradise!" he exclaimed, and the name stuck. Huff and his friends lost no time taking-up land, and others soon followed; by 1864 Paradise Valley was already known for its rich farmlands. It was also known for Indian hostilities.

Until 1869, Paradise Valley settlers knew all the worst of pioneer life—massacre and destruction lurked in every field and along every creekbank. Hinkey Summit itself was named for one of the Hinkey brothers, horribly slain. Even the establishment of Fort Winfield Scott in 1866, with its military garrison, didn't insure safety. A year after the militia had been in residence, a visiting fisherman was hideously murdered when he wandered out of sight of his two vacation companions. One of them, a minister, remained to preach his friend's funeral oration. The other, a soldier, set off to avenge



A STREET IN THE OLD TOWN OF PARADISE VALLEY

An October Travel Suggestion by Peggy Trego

Nevada's Paradise Valley . . .

his slain friend, returning violence for violence in a far-ranging blood-bath.

The valley records its early hardships in some of the gravestones of its charming cemetery, and in the still-standing buildings of Fort Scott, now used for the Buckingham family's modern ranch. In the cemetery, too, are many of the pioneer names of the valley, past and present, predominantly Basque, French, German and Italian.

Paradise City, as the main town was known in the 1880s, had 100 people who supported three hotels, two public halls, three mercantile stores, a drug store, a brewery, four saloons and a dozen other professional and trade offices. Today the town, listed officially as Paradise Valley, has 60 residents—although the valley population is 225. From the beginning this area was agricultural, and its first flour—ground in a coffee mill—was enthusiastically hailed in the middle 1860s. In 1868 the first flour mill was built, and today the much-improved mill still stands at the north-end of the valley, its machinery still in good condition. The mill owner, Joe Machado, is courteous to visitors.

There have been mining booms in this area, chief among them the excitement that

founded Spring City, 12 miles northeast of Paradise City; and Queen City, six miles from Spring. Little remains of either boom camp, although Spring City boasted seven saloons as late as 1881. A far more modern (though currently inactive) mine, the Cahill, lies 12 miles northeast of Highway 8-B on a hillside, and if you're lucky you'll find its caretaker, Shorty Darrah, in residence.

Paradise's crowning loveliness lies only 14 miles from town in the high country of Hinkey Summit. Here are picnic tables, running water, camping areas set out in the trees as part of the Humboldt National Forest facilities. It is wise to check in with Ranger Gene Hoffman or Mr. Miller in town before you camp here—fire hazard conditions sometimes require special care. If you aren't afraid of unimproved roads, it is possible to drive on over the summit, heading westerly back to U.S. 95 south of McDermitt—a fascinating "lost country" trip, but not one to be ripped off in a few hours.

Whether you spend an afternoon, or (ideally) camp-out and really get to know how much this area offers, chances are you'll echo Huff's 98-year-old proclamation: "What a Paradise." 111

POEM OF THE MONTH—

Blue Autumn

In Navajoland the skies are not somber,
The juniper berries are blue;
The winter is meeting the turquoise-skied summer,
The pinyons are tinted green, too.

The juniper berries that drop on the ground
Form halos that circle the trees;
And the blue halos rhyme with the blue mountain side . . .
Blue Autumn reigns king over these.

The leaves are not sere, no wind on the mesa,
Blue hogan smoke lifts to the sky;
The new year arrives while the old is retraced . . .
And blue shadows live on like a sigh.

—By GRACE BAIL
Beaumont, Calif.

NEW IDEAS for Desert Living (continued from page 8)

to your air mattress, and let it do the work. The air-pressure involved is very small—probably no more than two pounds—but it takes only a minute or two to inflate the ordinary air mattress.

I tried the Lectro-Flate on two or three camping trips and I don't believe the motorist will ever need to worry about running down his battery.

"Lectro-Flate" works best with the 12-volt systems. On 6-volt current it works a little slow but it gets the job done. The imaginative buyer can probably find many other duties for the tiny air-pump. For example, inflating station-wagon air-mattresses; for beach toys and balloons; for rubber boats; and perhaps even for blowing dust off delicate gem work in hobbycraft. The price of the unit is \$9.95, and it can be obtained from Harris Camping Sales, 28 Kenmore Road, Medford, Mass.

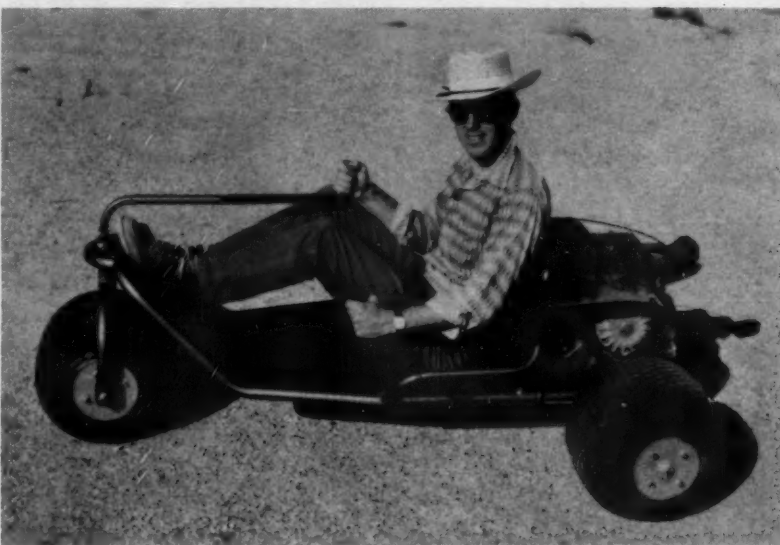
FRESH MEAT WITHOUT REFRIGERATION: Carrying fresh meat on camping trips has been a big problem since the first Cro-Magnon Man decided to cross the Libyan Desert. Over the years, many methods of preserving meat have been developed, such as drying, pickling and canning. But the end result has often been far from tasty. Armour and Company have just announced a new process for preserving fresh meat which probably will have a profound effect on desert expeditions. They call their product "Star Lite" freeze-dried foods. Fresh meats and other foods are frozen,

dehydrated by a special process, and packed in sealed foil bags. *They do not require refrigeration.*

Whole meat cuts like steak and pork chops, after freeze-drying, can be prepared by simply soaking in water for a few minutes, cooking and eating. On a recent morning we tried both the freeze-dried pork chops and the freeze-dried scrambled eggs. I can only say the results left me completely surprised. For example, the meats returned to their original shape and appearance after soaking in water and react just as fresh meat does while frying. The eggs are a healthy yellow color and also cook exactly like fresh scrambled eggs. A packet

for very obvious reasons. No refrigeration necessary, the foods are from 84% to 67% lighter in weight, and they are sealed in individual containers against both freezing weather and sub-tropical climates. According to the maker they will last from *one to two years* without refrigeration, with no adverse effects.

Price of the foods seems reasonable in view of the expensive processing involved and the tremendous advantage to the desert buyer. A package of four freeze-dried pork chops costs \$1.60. Chicken stew for four persons is \$2. Scrambled eggs are \$1.10. Steak, \$2.20 per package. Other foods are available. For more information on



DAN LEE TEST-DRIVES A MINIATURE DUNE-BUGGY, WHICH HE'LL REPORT ON IN A FUTURE COLUMN.

of seasoning, sealed with each food item, is added to the water used for soaking purposes (rehydration) before cooking.

The pork chops tasted as good or better than fresh chops, there was no "mealy" look or feel to the meat. The flavor was so close to fresh meat that I defy a blind-folded test-taster to tell the difference! The scrambled eggs, too, were surprisingly like fresh eggs in both taste and texture. It would be extremely difficult to tell them from the fresh product.

Armour and Company has placed the products for sale through various retail outlets and very soon you'll find them available in your hometown. I found nothing at all to complain about with these new freeze-dried foods. I think they will be a tremendous boon to the desert camper

Star-Lite freeze-dried foods contact Armour and Co., Grocery Products Division, 11355 West 31st Street, Chicago 9, Illinois. These foods are so new that supply is limited at the moment, but try the following: Richard's Lido Market, Newport Beach, Calif.; or, Jonas Ski Chalet, Inglewood, Calif.; or, Hollywood Sporting Goods, Los Angeles. No other addresses seem to be available at press time.

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Sauceda Mountain Gem Trails

The Big Prize For Mineral Collectors In This Rugged Arizona Range: Apache Tears

article and photographs by

CLOYD SORENSEN, JR.



APACHE TEARS—A FAIR DAY'S HAUL

FOR MANY YEARS, the rock and gem fields of Arizona's picturesque Saucedas Mountains have been known (but generally ignored) by but a handful of people. In rather recent times this land has been controlled and posted by the Gila Bend Gunnery Range. However, today this rockhound's paradise is usually accessible by securing trespass permission from the Air Police at Gila Bend Gunnery Range, Gila Bend, Arizona.

For the rockhound, many areas of the Saucedas offer chalcedony roses, agates, Apache tears by the thousands, geodes, and many other forms of quartz.

These rugged desert mountains harbor exotic animals such as the tiny collared peccary (javelina) — look for them and their extensive rootings in the arroyos. Here too—high on the mesas—you might catch a glimpse of the evasive desert bighorn. All through this area, which is extensively hunted in the fall and in February, are the desert mule and white tail deer.

Desert vegetation in the Saucedas

is varied, including several varieties of cholla, prickly pear, ocotillo, barrel cactus, the majestic giant saguaro, and a recent report of the exotic organ pipe cactus in the low hills a few miles northwest of Coffee Pot Mountain in the southern part of the range.

Unusual geological formations are everywhere, including the towering Tom Thumb, Coffee Pot, and a recently discovered natural bridge near the Papago Reservation fence.

For the desert photographer, the Saucedas have new and unlimited material to tempt the most progressive and creative shutterbug. Two hours after sunrise and two hours before sunset, the desert colors run wild. Shoot your color in these four hours, and then black and white during the day. Sunsets in the Saucedas, backed up with a giant saguaro, cholla or ocotillo, defy literal description.

Since the productive gem fields in the Saucedas are at least 35 four-wheel-drive miles southeast of Gila Bend, overnight camping and adequate water supply are necessary. The Gila Bend Sportsmens Association

has a permanent camp 37 miles southeast of town. It has been arranged with them for interested *Desert Magazine* readers to use this camp, after securing permission (see below).

At the camp you will find a lean-to shelter, a permanent barbecue grill, a large round table, shelves for storing gear, several cots (some with mattresses), some cooking utensils and water for emergency use only. Firewood is available nearby.

This camp is appropriately called Javelina Camp. It is centrally located and can be used as a base of exploring and rockhounding adventure. Almost in any direction from camp you can find gem fields.

One of the best Apache tear areas is along the base of a several-miles-long black mesa just northwest of camp. Cross the wash running north and south along the mesa and look for the "tears" immediately above the arroyo. Traveling further north in the arroyo—some travel can be done in a four-wheel-drive vehicle or power scooter—you will come to a junc-

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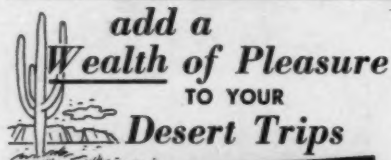
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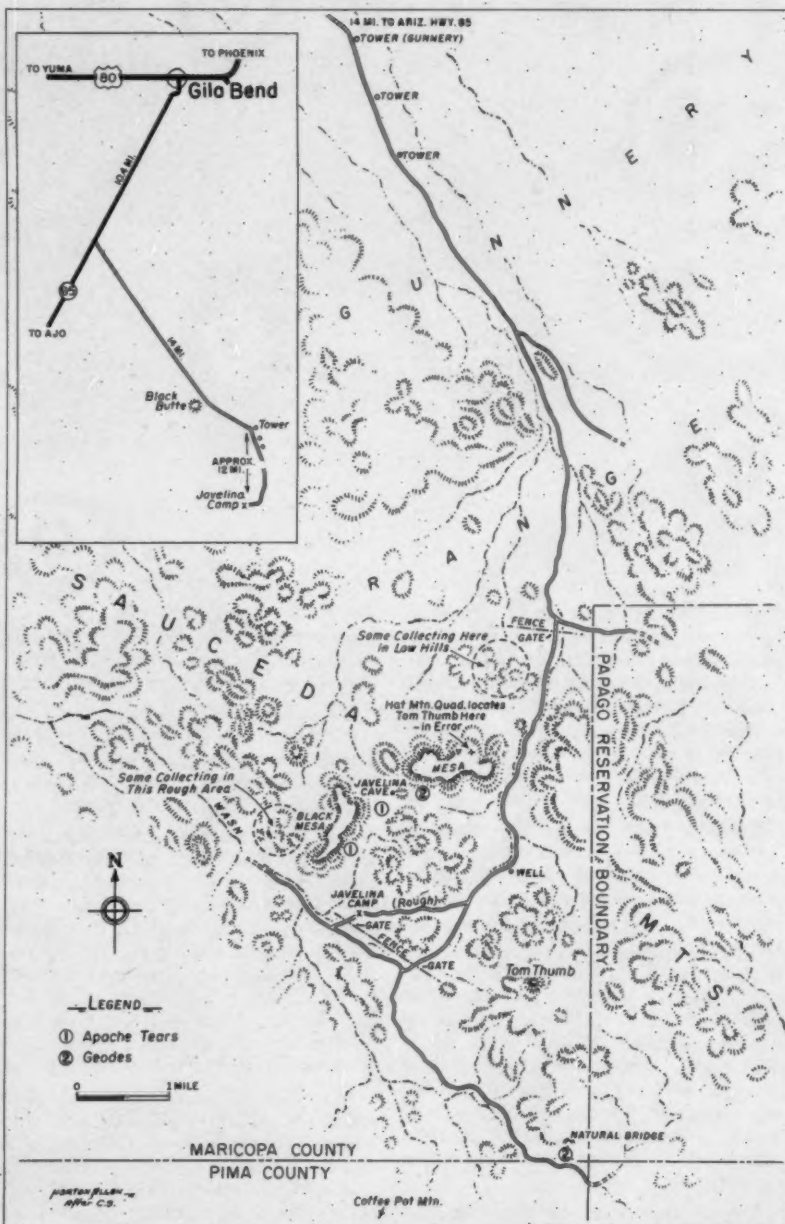
SOUTH PASADENA, CALIFORNIA

tion of three washes. Here on the west-side of the center hill is a well-used javelina cave. Approach the opening with caution less one of the frightened "pigs" run you down. About two hundred yards north of the hill and cave, good "crops" of geodes are seen in the ledges of the side washes.

Travel west from the camp will take you around the south end of the Black Mesa, and more rock and gem bearing areas. The terrain immediately west of the black mesa is rugged, to say the least, but some agate and other sought-after rocks are found here. It's best to leave your four-wheel-drive vehicle in the big

wash and head north on foot or power scooter. South of Black Mesa, toward Coffee Pot Mountain, are a group of low hills in which the exotic stand of organ pipe cactus are tucked in the first ledges next to the mountains.

East of camp you will see the towering landmark called Tom Thumb. By traveling about five miles from Javelina Camp (back toward Gila Bend) you can find a four-wheel-drive road that leads up a very large wash towards the Tom Thumb area. Just below this landmark, in the canyons, are several large water tanks. This area is pocked with Indian





caves and evidence of early and extensive use by the Indians.

Traveling southeast from camp, along a four-wheel-drive trail you will come across other rock producing flats and washes. A little over six miles travel will take you alongside a large wash that harbors several wrecked auto bodies. These were put here during the war for aerial camouflage practice.

Along the wash in the ledges are geodes that will delight all rockhounds. Immediately north of the wash, just above the apron, look for the yellowish natural bridge. Also in this area are many Indian caves and a few arrowheads and metates for the sharp-eyed explorer. If your travel in the natural bridge area takes you to a fence—you are at the west boundary of the Papago Indian Reservation.

For rockhounding in the desert adventure unlimited, I recommend Saucedas. If you plan to use the Javelina Camp you can secure permission, and more information if you wish, from Lynn Cool who lives on Scott

WOOPSI SUZIE SORENSEN SLIPS WHILE PRYING FOR A GEODE, WHILE THE AUTHOR'S OTHER DAUGHTER, CHRISTY, HANGS ON.

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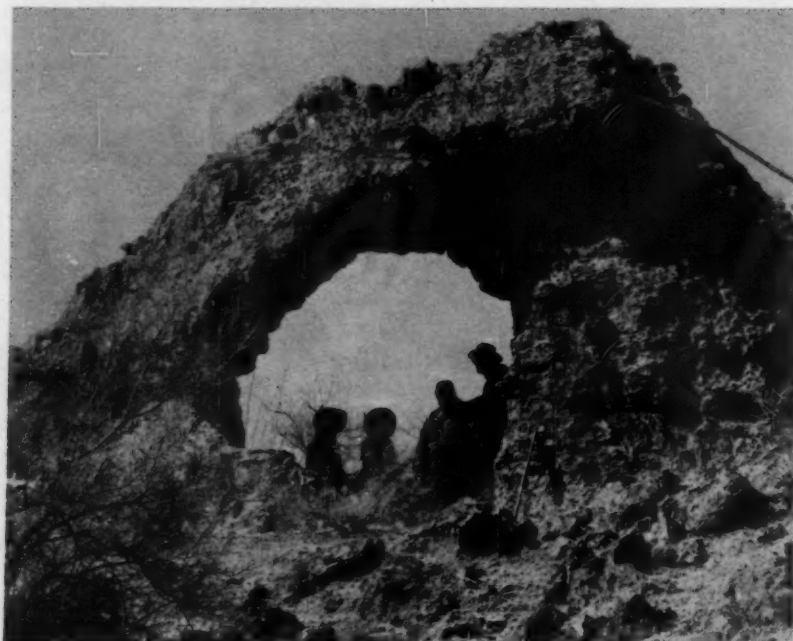
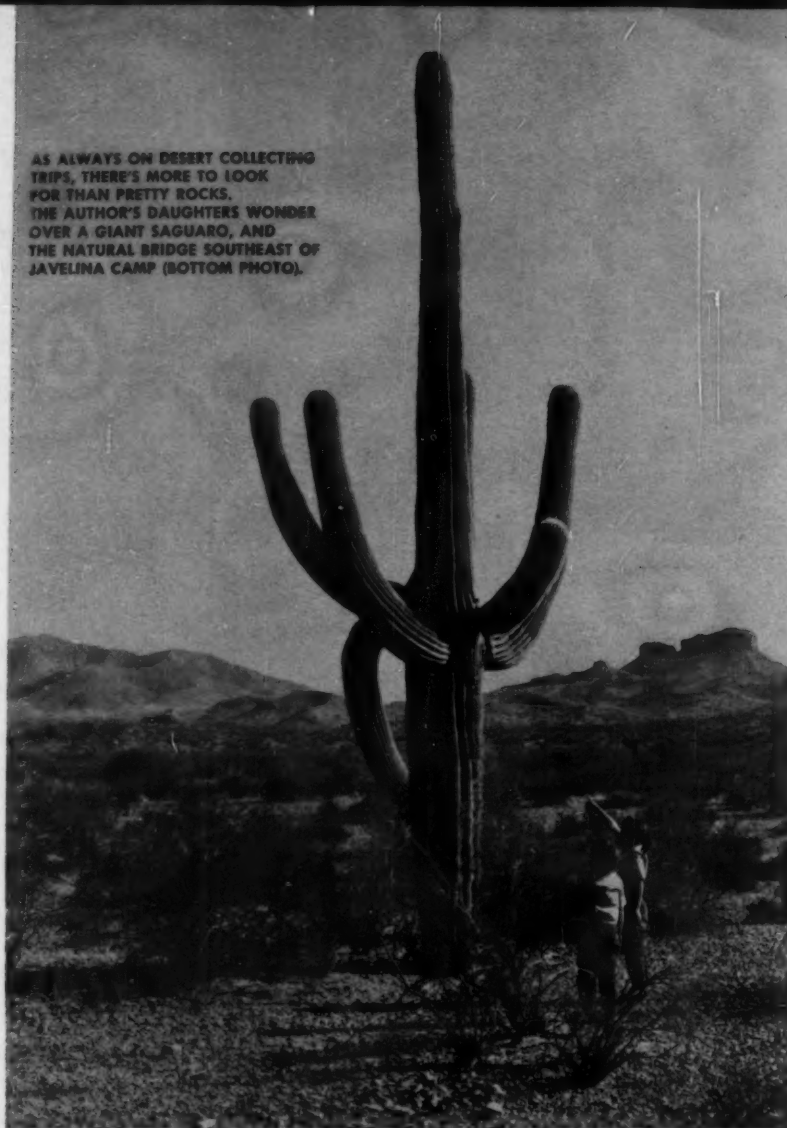
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AS ALWAYS ON DESERT COLLECTING TRIPS, THERE'S MORE TO LOOK FOR THAN PRETTY ROCKS. THE AUTHOR'S DAUGHTERS WONDER OVER A GIANT SAGUARO, AND THE NATURAL BRIDGE SOUTHEAST OF JAVELINA CAMP (BOTTOM PHOTO).



Street in Gila Bend, just one block north of Highway 80. You can't miss his white house if you look for his outdoor museum of desert relics collected over the past years. For your own safety, in case of trouble, it would be a wise move to check in and out with Cool. His phone number is MU3-2255. ///

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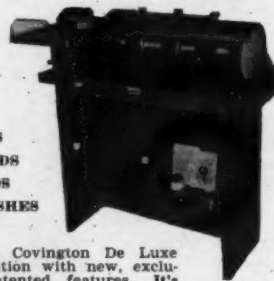
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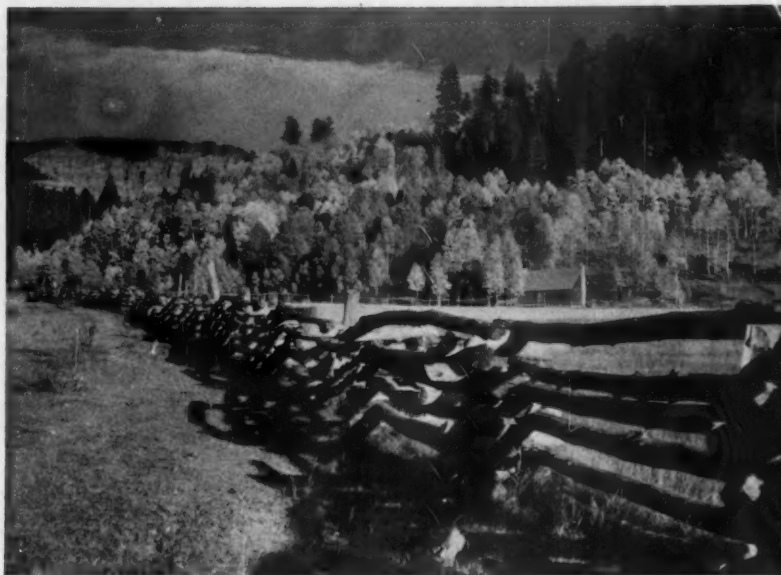
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Autumn Vistas In Utah's Markagunt



FALL SCENE IN CEDAR CANYON, 10 MILES FROM CEDAR CITY

An October Travel Suggestion by Frank Jensen

THE STEAK WAS delicious and seemed to go hand in glove with the crisp autumn night. Outside, a neon sign blinked on and off, advertising Milt's Stage Stop, five miles from Cedar City, Utah, in Cedar Canyon.

Inside, a fire roared in one corner of the dining room where a rustic stone fireplace climbed the wall.

A smiling, good looking woman of about 30 moved among the tables. "Everything all right?" she asked in her best American-Swiss accent. She was Maria Fehr, wife of the chef, Emil, who had learned the culinary arts in his homeland. The Fehrs came to Cedar City in 1952 at the behest of an uncle.

This pleasant interlude was a fitting climax on an autumn weekend spent camping and fishing in the Cedar Mountain area. Earlier in the day we had taken one last spin around Navajo Lake, trolling for the wary rainbows. The late afternoon drive back to Cedar City was through kaleidoscopic October colors, and a short side-trip to Cedar Breaks brought us to a dazzling sunset. But, I'm getting ahead of my story.

It is sometimes difficult to appreciate your own backyard, particularly when it offers an abundance of outdoor pleasures. A superintendent of one of the Southern Utah National Parks told me of a complaint by a late season visitor. "Your rangers describe the beauties of the park in the summer or show pictures of it in the winter," the man said. "Nothing is ever said about the three fall months." The visitor was right. In the opinion of most folks who travel this country, autumn is the best time to visit Southern Utah. It is an idyllic season when temperatures mellow and leaves turn from green to colors of gold and amber, heralding another Indian summer.

If I were asked to name one place in Utah where all of autumn's beauties were encompassed in one trip, my choice would have to be the mountain drive east of Cedar City. Utah Highway 14 leaves U.S.

91 at this cosmopolitan Mormon community, passes briefly through an aspen covered canyon, then twists its way up the side of a 10,000 foot mountain.

The name Cedar Mountain is strictly a local appellation. In the strict sense of the word, it is not a mountain at all, but a plateau—a tabletop highland that is part of the high plateau system of the Colorado River Basin. Its name on the maps is the Markagunt, a Paiute word meaning the "highland of the trees."

Twenty miles east of Cedar City the highway widens slightly where a sign identifies the place as the Zion Overview. There is no other marker and there would be no point in attempting to tabloid the panorama that greets the visitor here by a mere sign. Clarence Dutton, the rather literary geologist of the 1880s, said of it: "From the southwest salient of the Markagunt we behold one of the most sublime spectacles which characterize the loftiest standpoints of the plateau province."

From this vantage, the plateau drops 2000 feet to join the Kolob Terrace in a

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A CAMP-OUT AT ASPEN MIRROR LAKE, ONE OF SEVERAL LAKES THAT DOT THE MARKAGUNT

series of eroded amphitheatres that are part of the pink-cliffs formation. The Kolob is laced by a series of black, seemingly bottomless canyons. Beyond them in the hazy distance are the spires of Zion National Park and the deserts of Southwestern Utah. By late September the reds of the oak and the yellow of the aspen form a patchwork of color that quilts the Kolob with nature's own handiwork.

A short distance from the Zion Overview, the highway levels off at 10,000 feet, then dips slightly into Midway Valley, a broad grassy meadow four miles long. At Midway you turn off for Cedar Breaks National Monument, next stop on your itinerary of the Markagunt. Cedar Breaks is only six

miles from the main highway. A highly eroded, highly colored amphitheater that is a small edition of Bryce Canyon National Park, this basin is four miles across and 1500 feet deep. It differs from Bryce Canyon, however, in having more colors (47 have been distinguished here), and a deeper amphitheater.

The formation of Cedar Breaks was due primarily to what geologists call "raindrop erosion"—the gradual corrosion from the chemical action of water. The name was given by Mormon pioneers who settled at Cedar City in 1851. To those forebearers who had crossed the great plains and Rocky Mountains, "breaks" were synonymous with canyons, cliffs, or badlands. The pioneers

also called the scrubby junipers, "cedars." The association of Cedar Breaks with these evergreens is somewhat misleading since few if any junipers are found in the spruce- and pine-covered tops of the high plateaus.

Cedar Breaks has more than 100,000 visitors each year. The Utah Parks Company, a subsidiary of the Union Pacific Railroad, operates a lodge here, and the Park Service under its Mission 66 Program, has built a campground for the convenience of the camping vacationer.

Once out of the park you may see a herder trailing his sheep back to camp. Anyone who has been lucky enough to join a herder at his wagon for a dinner of mutton stew and sourdough bread has had a rare treat indeed.

Exactly four miles east of the Cedar Breaks turnoff, Midway Valley ends at a lava flow that spreads in all directions as far as the eye can see. The story is told of a hiker who attempted to walk to the center of this flow carrying an extra pair of boots. Half way there he had to give up. The bottoms of his footgear were cut to ribbons on the razor sharp rocks.

If a junket of the Markagunt can be said to have a destination, that goal would be Navajo Lake, 28 miles east of Cedar City, and adjacent to the main highway. At 9250 feet, Navajo Lake fits the picture postcard category of mountain lakes. In the fall it is bordered on one side by empty sinks, and on three sides by an aspen-spruce forest and open meadow. It is also a favorite camping spot on the Markagunt (last year more than 50,000 came) where the Forest Service has provided excellent campgrounds equipped with stoves, tables, piped water and picnic benches. There are even trailer camps, provided in the past two years to fill a growing demand. Accommodations are available at the Navajo Lake Lodge, although it is best to write for reservations. The Lodge is operated by Ray and Mary Eggart. Meals, boats, and cabins are available.

Navajo Lake was named when a militia from Cedar City caught up with a band of horse-stealing Navajos, here—or so the story goes. Prior to the construction in 1936 of a dike across the east-end of the lake, the water would pour through sink-holes into an underground labyrinth. During the early spring, part of this water emerged at Cascade Falls, gushing out of an open cavern in the side of the cliff.

Southern Utah waters are open to the sportsman through the end of October. Rainbow trout abound in most lakes and streams while brook and brown trout are also taken, although not in as large quantities as the more heavily stocked rainbows.

Cedar Mountain is one of the most heavily populated wildlife areas in the state, abounding in deer, elk, snowcat, cougar (in the remote areas only) snowshoe hares, fox, and the lowly porcupine.

The Duck Creek campground and Aspen Mirror Lake are also popular camping places. Both are located a few miles east of Navajo Lake on the main highway. From here Utah 14 dips toward U.S. 89 at Long Valley junction, passing through meadow- and forest-covered valleys where the stately ponderosa pine mixes with the spruce and fir.

For the more adventuresome traveler, an unpaved road leaves the highway about 10 miles below Duckcreek Pond and meanders for 20 miles through meadows and lava fields to Panguitch Lake, easily the best fishing hole in Southern Utah. ///



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By RANDALL HENDERSON

THIS MONTH OF October, 1961, is one of the golden anniversaries on my calendar. It was in October, 1911, just out of school in Los Angeles, that I bought a one-way ticket to the Arizona desert. With the exception of service in two World Wars, I have followed the desert trails ever since. I can now apply for membership in the desert's Half Century Club.



If the readers will pardon a bit of reminiscence, I will recall for the benefit of newcomers on the desert a few of the changes which have taken place in the last 50 years.

The first dam in the Colorado River was being constructed at Laguna site near Yuma when I arrived in Arizona. Now there are seven dams and diversion weirs in the stream below Grand Canyon.

On my first return trip to California, I crossed the Colorado at Ehrenberg on a ferryboat, and the sandy 90-mile road from Blythe to Indio required nine hours, much of it in low gear. Today a slow motorist can cover the distance in two hours including a stop at Steve Ragsdale's Desert Center for soft drinks. Steve is a violent prohibitionist.

In 1920 I piloted a World War I training plane to Phoenix, and had to land inside the racetrack at the fairgrounds because there were no other landing facilities.

In the Palm Springs-Palm Desert area, land which could be bought in 1912 for \$1.50 an acre recently was subdivided, and a 50x100 town lot sold for \$25,000.

The first crude evaporative air conditioner for home and shop became available in the mid-1920s. Previous to that we sweated it out with an electric fan—if there was electricity. It was no great hardship because we did not know any better.

I learned to play poker in the light of a kerosene lamp, and once overlooked a spade flush because the lamp chimney was all smoked up.

Science and technology have changed all that. Good highways have made the desert more accessible, and with air conditioning the high summer temperatures have ceased to be a deterrent to migration to this region of the arid landscape. Today the population of the Great American Desert is over four million, compared to less than a million a half century ago.

The desert itself probably has not changed much since the Tertiary period. But the genius and multiplying numbers of *homo sapiens* have brought fantastic changes not only to the landscape but to the character and aspirations of its human inhabitants. Only history will determine whether or not high speed transportation, television and the harnessing of nuclear power should be entered on the credit or debit side of the ledger of human progress.

In the meantime, increasing millions unquestionably will migrate to this desert land, lured by a favorable winter climate, the artificial appeal of a sophisticated environment, fast easy transportation, and the opportunity to exploit the natural resources of this backward land. But fortunately, not all will come for these reasons—for health and wealth. For, as I wrote for the initial issue of *Desert Magazine* 24 years ago, there are two deserts:

"One is a grim desolate wasteland. It is the home of venomous reptiles and stinging insects, of vicious thorn-covered plants and trees and unbearable heat. This is the desert seen by the stranger speeding along the highway, impatient to be out of this 'damnable country.' It is the desert visualized by those children of luxury to whom any environment is intolerable which does not provide all the comforts and luxuries of a pampering civilization. It is the concept fostered by fiction writers who dramatize the tragedies of the desert because there is a market for such manuscripts.

"But the stranger and the uninitiated see only the mask. The other desert—the real desert—is not for the eyes of the superficial observer or the fearful soul of the cynic. It is a land which reveals its true character only to those who come with courage, tolerance and understanding. For these, the desert holds rare gifts: health-giving sunshine, a sky that after the sun goes down is studded with diamonds; a breeze that bears no poison; a landscape of pastel colors such as no artist can reproduce; thorn-covered plants which during countless ages have clung tenaciously to life through heat, drouth, wind and the depredations of thirsty animals, and yet each season send forth blossoms of exquisite coloring as symbols of courage that triumphed over appalling obstacles.

"To those who come to the desert with tolerance it gives friendliness; to those who come with courage it gives new strength of character. Those seeking relaxation find in its far horizons and secluded canyons release from the world of man-made tensions. For those seeking beauty the desert offers nature's rarest artistry. This is the desert that has a deep and lasting fascination for men and women with poetry in their souls."

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